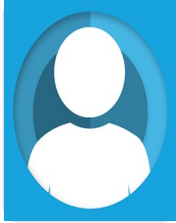




Amirkabir University of Technology
(Tehran Polytechnic)



Sajad Jafari

Assistant Professor
Department of Biomedical Engineering
Bioelectric

Email:

sajadjafari@aut.ac.ir

Phone:

h-index (Scopus):

49

Citations (Scopus):

9094

Supervised MSc Theses

#	Thesis title	By	Date
1	Investigating the effect of various types of approaching to the bifurcation points in biological networks and prediction of these points using recovery rate	Nastaran Navidmoghammad & Sajad Jafari	June 2022
2	dimension reduction of complex neural networks with preserving the nonlinear features of its collective behavior	Nafise Naseri & Sajad Jafari	June 2022
3	Prediction of explosive synchronization in networks of Biological oscillators	Bahare Karimi Rahjerdi & Sajad Jafari	March 2022
4	Measuring the level of synchronization in the brain network of children with attention deficit hyperactivity disorder while observing facial emotions using nonlinear measurements	Sheida Ansari Nasab & Sajad Jafari	September 2021
5	An interactive beta cells network model providing a treatment method for diabetes	Zahra Shahriari & Sajad Jafari	July 2019
6	Effect of partial time delays on neuronal networks under electromagnetic field	Mohadeseh Shafiei Kafraj & Sajad Jafari	July 2019
7	Investigating the role of spatial interactions on chaotification of temporal behavior of cell cycle	Yeganeh Shaverdi & Sajad Jafari	June 2019
8	Modeling of the rhythmic biped motion based on equilibrium-point hypothesis , non-linear (dynamical systems, and central pattern generators (CPG	Alireza Bahramian & Sajad Jafari	February 2019

9	Investigating the ways to create and control spiral waves in neural networks	Zahra Rostami & Sajad Jafari	July 2018
10	a chaotic model of nephrons dynamics considering proper interactions.	Jalal Khouhak & Sajad Jafari	October 2017
11	Control of synchronization in an oscillatory neural network model for parkinsons cure)	Ali Mirkharazi & Sajad Jafari	September 2017
12	A behavioral model of migraine considering relevant neural interactions)	Atiyeh Bayani & Sajad Jafari	October 2016
13	Acquiring a Chaotic Model for HIV Virus Growth E)	Zainab Aram & Sajad Jafari	October 2016
14	Modeling and analysis of interactions between genes in a gene network)	Seyede Sanaz Hosseini & Sajad Jafari	September 2016
15	Behavioral Model of Epilepsy Based On Neural Interactions	Shirin Panahi & Sajad Jafari	September 2016
16	Parameter estimation of a chaotic neuron model using a new cost function based on Poincare section's patterns by means of an evolutionary algorithm	Ali Abbasi Maleki & Sajad Jafari	June 2016
17	Parameter estimation in a chaotic cancer model using a new cost function based on Poincare section's patterns by means of evolutionary algorithm	Amirhossein Ameli & Sajad Jafari	February 2016

Books

#	Title	Author(s)	Publisher country	publication date	version
Portal Records					
1	Fractional Order Control and Synchronization of Chaotic Systems A Three-Dimensional Chaotic System with Square Equilibrium and No-Equilibrium	Viet-Thanh Pham, Sundarapandian Vaidyanathan, Christos Volos, Sajad Jafari, Tomas Gotthans	Switzerland	March 2017	1
2	Control Theory in Biomedical Engineering Applications in Physiology and Medical Robotics A double Pendulum Model for Human Walking Control on the Treadmill and Stride-to-stride Fluctuations: Control of Step Length, Time, Velocity and Position on the Treadmill (Chapter 10)	Alireza Bahramian, Farzad Towhidkhah, Sajad Jafari, Olfa Boubaker	Netherlands	July 2020	1
3	Recent Advances in Chaotic Systems and Synchronization- Chapter 9 - Some New Chaotic Maps With Application in Stochastic	Ezzedine Mliki, Navid Hasanzadeh, Fahimeh Nazarimehr, Akif Akgul, Olfa Boubaker, Sajad Jafari	Netherlands	January 2019	1
4	Recent advances in chaotic systems and synchronization A new five dimensional multistable chaotic system with hidden attractors (Chapter 5)	Atefeh Ahmadi, Karthikeyan Rajagopal, Viet-Thanh Pham, Olfa Boubaker, Sajad Jafari	Netherlands	January 2019	1

5	Recent advances in chaotic systems and synchronization A new four-dimensional chaotic system with no equilibrium point (Chapter 4)	Shirin Panahi, Viet-Thanh Pham, Karthikeyan Rajagopal, Olfa Boubaker, Sajad Jafari	Netherlands	January 2019	1
6	Recent advances in chaotic systems and synchronization Chaos in a System With Parabolic Equilibrium (Chapter 3)	Viet-Thanh Pham, Christos Volos, Sundarapandian Vaidyanathan, Sajad Jafari, Pm Goku, Tomasz Kapitaniak	Netherlands	January 2019	1
7	Recent advances in chaotic systems and synchronization Chaotic solutions in a forced two-dimensional Hindmarsh-Rose neuron (Chapter 10)	Zahra Rostami, , Karthikeyan Rajagopal, Olfa Boubaker, Sajad Jafari	Netherlands	January 2019	1
8	Recent advances in chaotic systems and synchronization Experimental observations and circuit realization of a jerk chaotic system with piecewise nonlinear function (Chapter 1)	Abir Lassoued, Olfa Boubaker, Rachid Dhifaoui, Sajad Jafari	Netherlands	January 2019	1
9	Recent advances in chaotic systems and synchronization Parameter Estimation of Chaotic Systems Using Density Estimation of Strange Attractors in the State Space (Chapter 7)	Yasser Shekofteh, Shirin Panahi, Olfa Boubaker, Sajad Jafari	Netherlands	January 2019	1
10	Advances on Nonlinear Dynamics of Electronic Systems Chaotic behaviors in a system with stable equilibrium	Viet-Thanh Pham, Sajad Jafari, Christos Volos, Luigi Fortuna	Germany	January 2019	1
11	Advances and Applications in Chaotic Systems	Viet-Thanh Pham, Sundarapandian Vaidyanathan, Cristos Volos, Sajad Jafari, Xiong Wang	United States	January 2016	1

Journal Papers

Portal Records

- 1 M. D. Vijayakumar, Hayder Natiq, Gervais Dolvis Leutcho, Karthikeyan Rajagopal, Sajad Jafari, Iqtadar Hussain, "Hidden and Self-excited Collective Dynamics of a New Multistable Hyper-Jerk System with Unique Equilibrium", INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS, May 2022 Vol. 32, Num. 5, Page 1-20, May 2022,
- 2 Fatemeh Parastesh Karegar, Karthikeyan Rajagopal, Sajad Jafari, Matjaz Perc, Eckehard Scholl, "Blinking coupling enhances network synchronization", PHYSICAL REVIEW E, May 2022 Vol. 105, Num. 1, Page 1-10, May 2022,
- 3 Balamurali Ramakrishnan, Hayder Natiq, Karthikeyan Rajagopal, Sajad Jafari, Pascaline Liaken Ndukum, Gervais Dolvis Leutcho, "Approximate symmetry memristive mega-stable oscillator with attractor growing and its Hamilton energy balance", The European Physical Journal Plus, May 2022 Vol. 137, Num. 5, Page 1-10, May 2022,
- 4 Mahtab Mehrabbeik, Mohammad Shams-Ahmar, Alexandra Levine, Sajad Jafari, Yaser Merrikhi, "Distinctive nonlinear dimensionality of neural spiking activity in extrastriate cortex during spatial working memory; a Higuichi fractal analysis", CHAOS SOLITONS & FRACTALS, April 2022 Vol. 158, Num. 1, Page 1-9, April 2022,
- 5 Zhen Wang, Ramesh Ramamoorthy, Xiaojian Xi, Karthikeyan Rajagopal, Peijun Zhang, Sajad Jafari, "The effects of extreme multistability on the collective dynamics of coupled memristive neurons", EUROPEAN PHYSICAL JOURNAL-SPECIAL TOPICS, April 2022 Vol. 0, Num. 0, Page 1-8, April 2022,

- 6 Balamurali Ramakrishnan, Fatemeh Parastesh Karegar, Sajad Jafari, Karthikeyan Rajagopal, Gani Stamov, Ivanka Stamova, "Synchronization in a Multiplex Network of Nonidentical Fractional-Order Neurons", *Fractal and Fractional*, March 2022 Vol. 6, Num. 3, Page 1-11, March 2022,
- 7 Dhinakaran Veeman, Mahtab Mehrabbeik, Hayder Natiq, Karthikeyan Rajagopal, Sajad Jafari, Iqtadar Hussain, "A New Chaotic System with Coexisting Attractors", *INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS*, March 2022 Vol. 32, Num. 3, Page 1-15, March 2022,
- 8 Arthanari Ramesh, Alireza Bahramian, Hayder Natiq, Karthikeyan Rajagopal, Sajad Jafari, Iqtadar Hussain, "A Novel Highly Nonlinear Quadratic System: Impulsive Stabilization, Complexity Analysis, and Circuit Designing", *COMPLEXITY*, March 2022 Vol. 2022, Num. 1, Page 1-14, March 2022,
- 9 Balamurali Ramakrishnan, Mahtab Mehrabbeik, Fatemeh Parastesh Karegar, Karthikeyan Rajagopal, Sajad Jafari, "A New Memristive Neuron Map Model and Its Network's Dynamics under Electrochemical Coupling", *Electronics*, January 2022 Vol. 11, Num. 1, Page 1-11, January 2022,
- 10 Viet-Thanh Pham, Christos Volos, Sajad Jafari, Ahmed A. Abd El-Latif, "Neuromorphic Memristive Computation: Where Memristor-Based Designs Meet Artificial Intelligence Applications", *Frontiers in Physics*, January 2022 Vol. 9, Num. 1, Page 1-2, January 2022,
- 11 Fatemeh Parastesh Karegar, Mahtab Mehrabbeik, Karthikeyan Rajagopal, Sajad Jafari, Matjaz Perc, "Synchronization in Hindmarsh-Rose neurons subject to higher-order interactions", *CHAOS*, January 2022 Vol. 32, Num. 1, Page 1-11, January 2022,
- 12 Dhinakaran Veeman, Ahmad Alanezi, Hayder Natiq, Sajad Jafari, Ahmed A. Abd El-Latif, "A Chaotic Quadratic Oscillator with Only Squared Terms: Multistability, Impulsive Control, and Circuit Design", *Symmetry-Basel*, January 2022 Vol. 14, Num. 2, Page 1-14, January 2022,
- 13 Sarbendu Rakshit, Fatemeh Parastesh Karegar, Sayantan Nag Chowdhury, Sajad Jafari, Jürgen Kurths, Dibakar Ghosh, "Relay interlayer synchronisation: invariance and stability conditions", *NONLINEARITY*, December 2021 Vol. 35, Num. 1, Page 681-718, December 2021,
- 14 Nafise Naseri, Sivabalan Ambigapathy, Mohadeseh Shafiei Kafraj, Farnaz Ghassemi, Karthikeyan Rajagopal, Sajad Jafari, "Connecting Curves as a Tool to Localize Hidden Attractors in a New Chaotic Hyperjerk System with No Equilibria", *INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS*, December 2021 Vol. 31, Num. 15, Page 1-10, December 2021,
- 15 Arthanari Ramesh, Iqtadar Hussain, Hayder Natiq, Mahtab Mehrabbeik, Sajad Jafari, Karthikeyan Rajagopal, "A New System with a Self-Excited Fully-Quadratic Strange Attractor and Its Twin Strange Repeller", *INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS*, December 2021 Vol. 31, Num. 16, Page 1-10, December 2021,
- 16 Lianyu Chen, Ibrahim Ismael Hamarash, Sajad Jafari, Karthikeyan Rajagopal, Iqtadar Hussain, "Various bifurcations in the development of stem cells", *EUROPEAN PHYSICAL JOURNAL-SPECIAL TOPICS*, November 2021 Vol. 0, Num. 0, Page 1-7, November 2021,
- 17 Nazanin Zandi Mehran, Sajad Jafari, Mohammadreza Hashemigolpayegany, Hamidreza Namazi, "The Effect of Noise and Nonlinear Noise Reduction Methods on The Fractal Dimension of Chaotic Time Series", *FRACTALS-COMPLEX GEOMETRY PATTERNS AND SCALING IN NATURE AND SOCIETY*, November 2021 Vol. 29, Num. 8, Page 1-16, November 2021,
- 18 Shirin Panahi, Fahimeh Nazarimehr, Sajad Jafari, Julien C. Sprott, Matjaz Perc, Robert Repnik, "Optimal synchronization of circulant and non-circulant oscillators", *APPLIED MATHEMATICS AND COMPUTATION*, November 2021 Vol. 394, Num. 1, Page 1-8, November 2021,
- 19 Chunyi Dong, Karthikeyan Rajagopal, Shaobo He, Sajad Jafari, Kehui Sun, "Chaotification of Sine-series maps based on the internal perturbation model", *Results in Physics*, November 2021 Vol. 31, Num. 1, Page 1-10, November 2021,
- 20 Iqtadar Hussain, Sajad Jafari, Matjaz Perc, Dibakar Ghosh, "Chimera states in a multi-weighted neuronal network", *PHYSICS LETTERS A*, November 2021 Vol. 424, Num. 1, Page 1-8, November 2021,
- 21 Sajede Aghababaei, Sundarambal Balaraman, Karthikeyan Rajagopal, Fatemeh Parastesh Karegar, Shirin Panahi, Sajad Jafari, "Effects of autapse on the chimera state in a Hindmarsh-Rose neuronal network", *CHAOS SOLITONS & FRACTALS*, October 2021 Vol. 153, Num. 2, Page 1-14, October 2021,

- 22 Mahtab Mehrabbeik, Fatemeh Parastesh Karegar, Janarthanan Ramadoss, Karthikeyan Rajagopal, Hamidreza Namazi, Sajad Jafari, "Synchronization and chimera states in the network of electrochemically coupled memristive Rulkov neuron maps", MATHEMATICAL BIOSCIENCES AND ENGINEERING, October 2021 Vol. 18, Num. 6, Page 9394-9409, October 2021,
- 23 Nafise Naseri, Sivabalan Ambigapathy, Mohadeseh Shafiei Kafraj, Farnaz Ghassemi, Karthikeyan Rajagopal, Sajad Jafari, "Connecting curves as a tool to localize Hidden attractors in a new chaotic hyper-jerk system with no equilibria", INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS, August 2021 Vol. 0, Num. 0, Page 0-0, August 2021,
- 24 Kui Zhang, M. D. Vijayakumar, Sajjad Shaukat Jamal, Hayder Natiq, Karthikeyan Rajagopal, Sajad Jafari, Iqtadar Hussain, "A Novel Megastable Oscillator with a Strange Structure of Coexisting Attractors: Design, Analysis, and FPGA Implementation", COMPLEXITY, August 2021 Vol. 2021, Num. 1, Page 1-11, August 2021,
- 25 Karthikeyan Rajagopal, Sajad Jafari, Anitha Karthikeyan, Ashokkumar Srinivasan, "Effect of magnetic induction on the synchronizability of coupled neuron network", CHAOS, August 2021 Vol. 31, Num. 8, Page 1-10, August 2021,
- 26 M. D. Vijayakumar, Sajjad Shaukat Jamal, Ahmed M. Ali Ali, Karthikeyan Rajagopal, Sajad Jafari, Iqtadar Hussain, "Proposing and Dynamical Analysis of a Hyperjerk Piecewise Linear Chaotic System with Offset Boostable Variable and Hidden Attractors", COMPLEXITY, August 2021 Vol. 2021, Num. 1, Page 1-11, August 2021,
- 27 Sedigheh Dehghani, Fahimeh Nazarimehr, Sajad Jafari, "How can cultural conditions affect society's decisions?", PHYSICA A-STATISTICAL MECHANICS AND ITS APPLICATIONS, July 2021 Vol. 582, Num. 1, Page 1-11, July 2021,
- 28 Karthikeyan Rajagopal, Sajad Jafari, Irene Moroz, Anitha Karthikeyan, Ashokkumar Srinivasan, "Noise induced suppression of spiral waves in a hybrid FitzHugh–Nagumo neuron with discontinuous resetting", CHAOS, July 2021 Vol. 31, Num. 7, Page 1-10, July 2021,
- 29 Atiyeh Bayani, Sajad Jafari, Hamed Azarnoush, "Explosive synchronization: From synthetic to real-world networks", CHINESE PHYSICS B, July 2021 Vol. 31, Num. 2, Page 1-20, July 2021,
- 30 Sheida Ansari Nasab, Shirin Panahi, Farnaz Ghassemi, Sajad Jafari, Karthikeyan Rajagopal, Dibakar Ghosh, Matjaz Perc, "Functional neuronal networks reveal emotional processing differences in children with ADHD", COGNITIVE NEURODYNAMICS, July 2021 Vol. 0, Num. 0, Page 0-0, July 2021,
- 31 Ramesh Ramamoorthy, Sajjad Shaukat Jamal, Iqtadar Hussain, Mahtab Mehrabbeik, Sajad Jafari, Karthikeyan Rajagopal, "A New Circumscribed Self-Excited Spherical Strange Attractor", COMPLEXITY, June 2021 Vol. 2021, Num. 1, Page 1-8, June 2021,
- 32 Iqtadar Hussain, Dibakar Ghosh, Sajad Jafari, "Chimera States In A Thermosensitive Fitzhugh-Nagumo Neuronal Network", APPLIED MATHEMATICS AND COMPUTATION, June 2021 Vol. 410, Num. 1, Page 1-10, June 2021,
- 33 Alireza Bahramian, Sajjad Shaukat Jamal, Fatemeh Parastesh Karegar, Karthikeyan Rajagopal, Sajad Jafari, "Collective behavior of cortico-thalamic circuits: Logic gates as the thalamus and a dynamical neuronal network as the cortex", CHINESE PHYSICS B, June 2021 Vol. 31, Num. 2, Page 1-21, June 2021,
- 34 Janarthanan Ramadoss, Sajede Aghababaei, Fatemeh Parastesh Karegar, Karthikeyan Rajagopal, Sajad Jafari, Iqtadar Hussain, "Chimera State in the Network of Fractional-Order FitzHugh–Nagumo Neurons", COMPLEXITY, June 2021 Vol. 2021, Num. 1, Page 1-9, June 2021,
- 35 Karthikeyan Rajagopal, Sajad Jafari, Chunbiao Li, Anitha Karthikeyan, Prakash Duraisamy, "Suppressing Spiral Waves In A Lattice Array Of Coupled Neurons Using Delayed Asymmetric Synapse Coupling", CHAOS SOLITONS & FRACTALS, May 2021 Vol. 146, Num. 1, Page 1-10, May 2021,
- 36 Karthikeyan Rajagopal, Shirin Panahi, Mo Chen, Sajad Jafari, Bocheng Bao, "Suppressing Spiral Wave Turbulence In A Simple Fractional-Order Discrete Neuron Map Using Impulse Triggering", FRACTALS-COMPLEX GEOMETRY PATTERNS AND SCALING IN NATURE AND SOCIETY, May 2021 Vol. 29, Num. 8, Page 1-10, May 2021,
- 37 Mahtab Mehrabbeik, Ramesh Ramamoorthy, Karthikeyan Rajagopal, Fahimeh Nazarimehr, Sajad Jafari, Iqtadar Hussain, "Critical slowing down indicators in synchronous period-doubling for salamander flicker vision", EUROPEAN PHYSICAL JOURNAL-SPECIAL TOPICS, May 2021 Vol. 230, Num. 0, Page 3291-3298, May 2021,
- 38 Chunbiao Li, Yuxuan Peng, Ze Tao, Julien Clinton Sprott, Sajad Jafari, "Coexisting Infinite Equilibria And Chaos", INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS, April 2021 Vol. 31, Num. 5, Page 1-17, April 2021,

- 39 Fatemeh Parastesh Karegar, Zainab Aram, Hamidreza Namazi, Julien Clinton Sprott, Sajad Jafari, "A simple chaotic model for development of HIV virus", *Scientia Iranica*, April 2021 Vol. 28, Num. 3, Page 1643-1652, April 2021,
- 40 Zhen Wang, Abdul Jalil M. Khalaf, Sajad Jafari, Shirin Panahi, Chunbiao Li, Iqtadar Hussain, "A New Memristive Chaotic System With A Plane And Two Lines Of Equilibria", *INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS*, April 2021 Vol. 31, Num. 5, Page 1-13, April 2021,
- 41 Dhinakaran Veeman, Hayder Natiq, Nadia M. G. Al-Saidi, Karthikeyan Rajagopal, Sajad Jafari, Iqtadar Hussain, "A New Megastable Chaotic Oscillator With Blinking Oscillation Terms", *COMPLEXITY*, April 2021 Vol. 2021, Num. 1, Page 1-12, April 2021,
- 42 Jerzy Wojewoda, Karthikeyan Rajagopal, Viet-Thanh Pham, Fatemeh Parastesh Karegar, Tomasz Kapitaniak, Sajad Jafari, "Chimera state in a network of nonlocally coupled impact oscillators", *JOURNAL OF ZHEJIANG UNIVERSITY-SCIENCE A*, March 2021 Vol. 22, Num. 3, Page 235-244, March 2021,
- 43 Karthikeyan Rajagopal, Iqtadar Hussain, Zahra Rostami, Chunbiao Li, Viet-Thanh Pham, Sajad Jafari, "Magnetic Induction Can Control The Effect Of External Electrical Stimuli On The Spiral Wave", *APPLIED MATHEMATICS AND COMPUTATION*, February 2021 Vol. 390, Num. 1, Page 1-15, February 2021,
- 44 Chunbiao Li, Zhenyu Gu, Zuohua Liu, Sajad Jafari, Tomasz Kapitaniak, "Constructing Chaotic Repellers", *CHAOS SOLITONS & FRACTALS*, January 2021 Vol. 142, Num. 1, Page 1-8, January 2021,
- 45 Ali Jafari, Iqtadar Hussain, Fahimeh Nazarimehr, Mohammadreza Hashemigolpayegany, Sajad Jafari, "A simple guide to plot a proper bifurcation diagram", *INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS*, January 2021 Vol. 31, Num. 1, Page 1-11, January 2021,
- 46 Mahdieh Ghasemi, Mojtaba Zarei, Ali Foroutannia, Sajad Jafari, "Study Of Functional Connectivity Of Central Motor System In Parkinsons Disease Using Copula Theory", *BIOMEDICAL SIGNAL PROCESSING AND CONTROL*, December 2020 Vol. 65, Num. 1, Page 1-10, December 2020,
- 47 Zahra Faghani, Sajad Jafari, Chao-Yang Chen, Fahimeh Nazarimehr, "Investigating bifurcation points of neural networks: application to the epileptic seizure", *EUROPEAN PHYSICAL JOURNAL B*, December 2020 Vol. 93, Num. 1, Page 1-18, December 2020,
- 48 Fahimeh Nazarimehr, Sajad Jafari, Matjaž Perc, Julien C. Sprott, "Critical slowing down indicators", *EPL*, December 2020 Vol. 132, Num. 1, Page 1-7, December 2020,
- 49 Sifeu Takougang Kingni, André Cheukem, Peguy Roussel Nwagoum Tuwa, André Chéagé Chamgoué, Viet-Thanh Pham, Sajad Jafari, "Synchronous Reluctance Motor With Load Vibration Perturbation: Analysis, Electronic Implementation And Adaptive Backstepping Sliding Mode Control", *IRANIAN JOURNAL OF SCIENCE AND TECHNOLOGY-TRANSACTIONS OF ELECTRICAL ENGINEERING*, November 2020 Vol. 45, Num. 2, Page 645-654, November 2020,
- 50 Yunzhu Shen, Yongxiang Zhang, Sajad Jafari, "Coexistence Of Strange Nonchaotic Attractors In A Quasiperiodically Forced Dynamical Map", *INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS*, October 2020 Vol. 30, Num. 13, Page 1-20, October 2020,
- 51 Biquan Chen, Karthikeyan Rajagopal, Fatemeh Parastesh Karegar, Hamed Azarnoush, Sajad Jafari, Iqtadar Hussain, "Observation of chimera patterns in a network of coupled chaotic finance systems", *COMMUNICATIONS IN THEORETICAL PHYSICS*, October 2020 Vol. 72, Num. 10, Page 1-10, October 2020,
- 52 Fatemeh Parastesh Karegar, Sajad Jafari, Hamed Azarnoush, Zahra Shahriari, Zhen Wang, Stefano Boccaletti, Matjaž Perc, "Chimeras", *PHYSICS REPORTS-REVIEW SECTION OF PHYSICS LETTERS*, October 2020 Vol. 898, Num. 1, Page 1-114, October 2020,
- 53 Nazanin Zandi Mehran, Sajad Jafari, Mohammadreza Hashemigolpayegany, "Signal Separation In An Aggregation Of Chaotic Signals", *CHAOS SOLITONS & FRACTALS*, September 2020 Vol. 138, Num. 1, Page 1-8, September 2020,
- 54 Gervais Dolvis Leutcho, Theophile Fonzin Fozin, Alexis Ngoumkam Negou, Zeric Njitacke Tabekoueng, Viet-Thanh Pham, Jacques Kengne, Sajad Jafari, "A Novel Megastable Hamiltonian System With Infinite Hyperbolic And Nonhyperbolic Equilibria", *COMPLEXITY*, September 2020 Vol. 2020, Num. 1, Page 1-12, September 2020,
- 55 Zhen Wang, Hamid Reza Abdolmohammadi, Mingshu Chen, Agnieszka Chudzik, Sajad Jafari, Iqtadar Hussain, "A New Megastable Chaotic Oscillator With Singularity", *EUROPEAN PHYSICAL JOURNAL-SPECIAL TOPICS*, September 2020 Vol. 229, Num. 12, Page 2341-2348, September 2020,

- 56 Zhen Wang, Shirin Panahi, Abdul Jalil M. Khalaf, Sajad Jafari, Iqtadar Hussain, "Synchronization of chaotic jerk systems", *INTERNATIONAL JOURNAL OF MODERN PHYSICS B*, August 2020 Vol. 34, Num. 20, Page 1-9, August 2020,
- 57 Mohadeseh Shafiei Kafraj, Fatemeh Parastesh Karegar, Sajad Jafari, "Firing patterns of an improved Izhikevich neuron model under the effect of electromagnetic induction and noise", *CHAOS SOLITONS & FRACTALS*, August 2020 Vol. 137, Num. 0, Page 0-0, August 2020,
- 58 Jay Prakash Singh, Sajad Jafari, Abdul Jalil M. Khalaf, Viet-Thanh Pham, Binoy Krishna Roy, "A Modified Chaotic Oscillator With Megastability And Variable Boosting And Its Synchronisation Using Contraction Theory-Based Control Which Is Better Than Backstepping And Nonlinear Active Control", *PRAMANA-JOURNAL OF PHYSICS*, August 2020 Vol. 94, Num. 1, Page 1-14, August 2020,
- 59 Gervais Dolvis Leutcho, Jacques Kengne, Alexis Ngoumkam Negou, Theophile Fonzin Fozin, Viet-Thanh Pham, Sajad Jafari, "A Modified Simple Chaotic Hyperjerk Circuit: Coexisting Bubbles Of Bifurcation And Mixed-Mode Bursting Oscillations", *ZEITSCHRIFT FÜR NATURFORSCHUNG SECTION A-A JOURNAL OF PHYSICAL SCIENCES*, July 2020 Vol. 75, Num. 7, Page 593-607, July 2020,
- 60 Bo Yan, Shirin Panahi, Shaobo He, Sajad Jafari, "Further dynamical analysis of modified Fitzhugh–Nagumo model under the electric field", *NONLINEAR DYNAMICS*, July 2020 Vol. 101, Num. 1, Page 521-529, July 2020,
- 61 Karthikeyan Rajagopal, Anitha Karthikeyan, Sajad Jafari, Fatemeh Parastesh Karegar, Christos Volos, Iqtadar Hussain, "Wave propagation and spiral wave formation in a Hindmarsh–Rose neuron model with fractional-order threshold memristor synaps", *INTERNATIONAL JOURNAL OF MODERN PHYSICS B*, July 2020 Vol. 34, Num. 17, Page 1-14, July 2020,
- 62 Jacques Kengne, Hamid Reza Abdolmohammadi, Vitrice Ruben Folifack Signing, Sajad Jafari, Guillaume Honoré Kom, "Chaos And Coexisting Bifurcations In A Novel 3D Autonomous System With A Non-Hyperbolic Fixed Point: Theoretical Analysis And Electronic Circuit Implementation", *BRAZILIAN JOURNAL OF PHYSICS*, June 2020 Vol. 50, Num. 1, Page 442-453, June 2020,
- 63 Karthikeyan Rajagopal, Viet-Thanh Pham, Serdar Cicek, Sajad Jafari, Anitha Karthikeyan, Sundaram Arun, "A Chaotic Jerk System With Different Types Of Equilibria And Its Application In Communication System", *TEHNICKI VJESNIK-TECHNICAL GAZETTE*, June 2020 Vol. 27, Num. 3, Page 681-686, June 2020,
- 64 Karthikeyan Rajagopal, Navid Hasanzadeh, Fatemeh Parastesh Karegar, Ibrahim Ismael Hamarash, Sajad Jafari, Iqtadar Hussain, "A fractional-order model for the novel coronavirus (COVID-19) outbreak", *NONLINEAR DYNAMICS*, June 2020 Vol. 101, Num. 1, Page 711-718, June 2020,
- 65 Haikong Lu, Jiri Petrzela, Tomas Gotthans, Karthikeyan Rajagopal, Sajad Jafari, Iqtadar Hussain, "Fracmemristor Chaotic Oscillator With Multistable And Antimonotonicity Properties", *Journal of Advanced Research*, June 2020 Vol. 25, Num. 1, Page 137-145, June 2020,
- 66 Zahra Faghani, Zhen Wang, Fatemeh Parastesh Karegar, Sajad Jafari, Matjaz Perc, "Is There a Relation Between Synchronization Stability and Bifurcation Type?", *INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS*, June 2020 Vol. 30, Num. 8, Page 1-8, June 2020,
- 67 Fahimeh Nazarimehr, Shirin Panahi, Mahdi Jalili, Matjaž Perc, Sajad Jafari, Brigita Fercec, "Multivariable coupling and synchronization in complex networks", *APPLIED MATHEMATICS AND COMPUTATION*, May 2020 Vol. 372, Num. 1, Page 1-9, May 2020,
- 68 Ali Foroutannia, Mahdieh Ghasemi, Fatemeh Parastesh Karegar, Sajad Jafari, Matjaž Perc, "Complete dynamical analysis of a neocortical network model", *NONLINEAR DYNAMICS*, May 2020 Vol. 100, Num. 0, Page 2699-2714, May 2020,
- 69 Yanling Wang, Tengfei Lei, Xin Zhang, Chunbiao Li, Sajad Jafari, "Hyperchaotic Oscillation In The Deformed Rikitake Two-Disc Dynamo System Induced By Memory Effect", *COMPLEXITY*, May 2020 Vol. 2020, Num. 1, Page 1-10, May 2020,
- 70 Gervais Dolvis Leutcho, Jacques Kengne, Theophile Fonzin Fozin, Kaluvarayan Srinivasan, Zeric Njitacke Tabekoueng, Sajad Jafari, Monica Borda, "Multistability Control Of Space Magnetization In Hyperjerk Oscillator: A Case Study", *JOURNAL OF COMPUTATIONAL AND NONLINEAR DYNAMICS*, May 2020 Vol. 15, Num. 5, Page 1-10, May 2020,

- 71 Gervais Dolvis Leutcho, Sajad Jafari, Ibrahim Ismael Hamarash, Jacques Kengne, Zeric Njitacke Tabekoueng, Iqtadar Hussain, "A New Megastable Nonlinear Oscillator With Infinite Attractors", *CHAOS SOLITONS & FRACTALS*, May 2020 Vol. 134, Num. 1, Page 1-7, May 2020,
- 72 Fatemeh Parastesh Karegar, Hamed Azarnoush, Sajad Jafari, Matja? Perc, "Detecting chimeras by eigenvalue decomposition of the bivariate local order parameter", *EPL*, May 2020 Vol. 130, Num. 2, Page 1-7, May 2020,
- 73 Abdul-Basset A Al-Hussein, Fadhil Rahma Tahir, Sajad Jafari, "Hopf Bifurcation And Chaos In Time-Delay Model Of Glucose-Insulin Regulatory System", *CHAOS SOLITONS & FRACTALS*, May 2020 Vol. 137, Num. 1, Page 1-8, May 2020,
- 74 Gervais Dolvis Leutcho, Jacques Kengne, Leandre Kamdjeu Kengne, Akif Akgul, Viet-Thanh Pham, Sajad Jafari, "A Novel Chaotic Hyperjerk Circuit With Bubbles Of Bifurcation: Mixed-Mode Bursting Oscillations, Multistability, And Circuit Realization", *PHYSICA SCRIPTA*, May 2020 Vol. 95, Num. 7, Page 1-18, May 2020,
- 75 Viet-Thanh Pham, Dalia Sami Ali, Nadia M. G. Al-Saidi, Karthikeyan Rajagopal, Fawaz E. Alsaadi, Sajad Jafari, "A Novel Mega-Stable Chaotic Circuit", *RADIOENGINEERING*, April 2020 Vol. 29, Num. 1, Page 140-146, April 2020,
- 76 Hongyan Zang, Zhenyu Gu, Tengfei Lei, Chunbiao Li, Sajad Jafari, "Coexisting Chaotic Attractors In A Memristive System And Their Amplitude Control", *PRAMANA-JOURNAL OF PHYSICS*, April 2020 Vol. 94, Num. 1, Page 1-9, April 2020,
- 77 Xiaojian Xi, Shirin Panahi, Viet-Thanh Pham, Zhen Wang, Sajad Jafari, Iqtadar Hussain, "Optimum topology and coupling strength for synchronization", *APPLIED MATHEMATICS AND COMPUTATION*, April 2020 Vol. 379, Num. 1, Page 1-8, April 2020,
- 78 Zhen Wang, Sara Barooni, Fatemeh Parastesh Karegar, Sajad Jafari, Dibakar Ghosh, Matja? Perc, Iqtadar Hussain, "Chimeras in an adaptive neuronal network with burst-timing-dependent plasticity", *NEUROCOMPUTING*, April 2020 Vol. 406, Num. 0, Page 117-126, April 2020,
- 79 Viet-Thanh Pham, Sundarapandian Vaidyanathan, Christos Volos, Sajad Jafari, Tomasz Kapitaniak, "A New Multi-Stable Chaotic Hyperjerk System, Its Special Features, Circuit Realization, Control And Synchronization", *Archives of Control Sciences*, March 2020 Vol. 30, Num. 1, Page 23-45, March 2020,
- 80 Sajad Jafari, Tomasz Kapitaniak, "Special Chaotic Systems", *EUROPEAN PHYSICAL JOURNAL-SPECIAL TOPICS*, March 2020 Vol. 229, Num. 6, Page 877-886, March 2020,
- 81 Lianyu Chen, Fahimeh Nazarimehr, Sajad Jafari, Esteban Tlelo-Cuautle, Iqtadar Hussain, "Investigation of early warning indexes in a three-dimensional chaotic system with zero eigenvalues", *ENTROPY*, March 2020 Vol. 22, Num. 3, Page 1-8, March 2020,
- 82 Gervais Dolvis Leutcho, Abdul Jalil M. Khalaf, Zeric Njitacke Tabekoueng, Theophile Fonzin Fozin, Jacques Kengne, Sajad Jafari, Iqtadar Hussain, "A New Oscillator With Mega-Stability And Its Hamilton Energy: Infinite Coexisting Hidden And Self-Excited Attractors", *CHAOS*, March 2020 Vol. 30, Num. 3, Page 1-9, March 2020,
- 83 Shirin Panahi, Sajad Jafari, "A fast technique for calculating master stability function", *INTERNATIONAL JOURNAL OF MODERN PHYSICS B*, February 2020 Vol. 34, Num. 5, Page 1-12, February 2020,
- 84 Mohadeseh Shafiei Kafraj, Sajad Jafari, Fatemeh Parastesh Karegar, Mahmut Ozer, Tomasz Kapitaniak, Matja? Perc, "Time delayed chemical synapses and synchronization in multilayer neuronal networks with ephaptic inter-layer coupling", *COMMUNICATIONS IN NONLINEAR SCIENCE AND NUMERICAL SIMULATION*, January 2020 Vol. 84, Num. 1, Page 1-14, January 2020,
- 85 Alireza Bahramian, Ali Nouri, Farzad Towhidkhan, Hamed Azarnoush, Sajad Jafari, "Introducing a nonlinear coupling for central pattern generator: Improvement on robustness by expanding basin of attraction and performance by decreasing the transient time", *JOURNAL OF VIBRATION AND CONTROL*, January 2020 Vol. 0, Num. 0, Page 1-10, January 2020,
- 86 Karthikeyan Rajagopal, Hadi Jahanshahi, Sajad Jafari, Riessom Weldegiorgis, Anitha Karthikeyan, Prakash Duraisamy, "Coexisting Attractors In A Fractional Order Hydro Turbine Governing System And Fuzzy PID Based Chaos Control", *ASIAN JOURNAL OF CONTROL*, January 2020 Vol. 23, Num. 2, Page 894-907, January 2020,
- 87 Shirin Panahi, Zahra Rostami, Karthikeyan Rajagopal, Hamidreza Namazi, Sajad Jafari, "Complete dynamical analysis of myocardial cell exposed to magnetic flux", *CHINESE JOURNAL OF PHYSICS*, December 2019 Vol. 64, Num. 1, Page 363-373, December 2019,

- 88 Nazanin Zandi Mehran, Shirin Panahi, Zahra Sadat Hosseini, Mohammadreza Hashemigolpayegany, Sajad Jafari, "One dimensional map-based neuron model: a phase space interpretation", CHAOS SOLITONS & FRACTALS, December 2019 Vol. 132, Num. 109558, Page 1-14, December 2019,
- 89 Tianai Lu, Chunbiao Li, Sajad Jafari, Fuhong Min, "Controlling Coexisting Attractors Of Conditional Symmetry", INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS, December 2019 Vol. 29, Num. 14, Page 1-16, December 2019,
- 90 Nastaran Navidmoghaddam, Fahimeh Nazarimehr, Sajad Jafari, Julien C. Sprott, "Studying the performance of critical slowing down indicators in a biological system with a period-doubling route to chaos", PHYSICA A- STATISTICAL MECHANICS AND ITS APPLICATIONS, November 2019 Vol. 544, Num. 1, Page 1-9, November 2019,
- 91 Zhen Wang, Zahra Rostami, Sajad Jafari, Fawaz E. Alsaadi, Mitja Slavinec, Matjaz Perc, "Suppression Of Spiral Wave Turbulence By Means Of Periodic Plane Waves In Two-Layer Excitable Media", CHAOS SOLITONS & FRACTALS, November 2019 Vol. 128, Num. 1, Page 229-233, November 2019,
- 92 Jalal Khouhak, Zahra Faghani, Jakob Lund Laugesen, Sajad Jafari, "The Emergence Of Chimera States In A Network Of Nephrons", CHINESE JOURNAL OF PHYSICS, November 2019 Vol. 63, Num. 1, Page 402-409, November 2019,
- 93 Fatemeh Parastesh Karegar, Sajad Jafari, Hamed Azarnoush, "Traveling patterns in a network of memristor-based oscillators with extreme multistability", EUROPEAN PHYSICAL JOURNAL-SPECIAL TOPICS, October 2019 Vol. 228, Num. 1, Page 2123-2131, October 2019,
- 94 Shirin Panahi, Sajad Jafari, "Synchronization in a network of chaotic memristive jerk oscillators", EUROPEAN PHYSICAL JOURNAL-SPECIAL TOPICS, October 2019 Vol. 228, Num. 10, Page 2147-2155, October 2019,
- 95 Fatemeh Parastesh Karegar, Sajad Jafari, Hamed Azarnoush, Boshra Hatef, Hamidreza Namazi, Dawid Dudkowski, "Chimera in a network of memristor-based Hopfield neural network", EUROPEAN PHYSICAL JOURNAL-SPECIAL TOPICS, October 2019 Vol. 228, Num. 10, Page 2023-2033, October 2019,
- 96 Fatemeh Parastesh Karegar, Chao-Yang Chen, Hamed Azarnoush, Sajad Jafari, Boshra Hatef, "Synchronization patterns in a blinking multilayer neuronal network", EUROPEAN PHYSICAL JOURNAL-SPECIAL TOPICS, October 2019 Vol. 228, Num. 11, Page 2465-2474, October 2019,
- 97 Leyla Khaleghi, Shirin Panahi, Sayantan Nag Chowdhury, Sergey Bogomolov, Dibakar Ghosh, Sajad Jafari, "Chimera states in a ring of map-based neurons", PHYSICA A-STATISTICAL MECHANICS AND ITS APPLICATIONS, September 2019 Vol. 536, Num. 0, Page 1-9, September 2019,
- 98 Jalal Khouhak, Zahra Faghani, Sajad Jafari, "Wave Propagation In A Network Of Interacting Nephrons", PHYSICA A- STATISTICAL MECHANICS AND ITS APPLICATIONS, September 2019 Vol. 530, Num. 1, Page 1-9, September 2019,
- 99 Karthikeyan Rajagopal, Sifeu Takougang Kingni, Guillaume Honoré Kom, Viet-Thanh Pham, Anitha Karthikeyan, Sajad Jafari, "Self-Excited And Hidden Attractors In A Simple Chaotic Jerk System And In Its Time-Delayed Form: Analysis, Electronic Implementation, And Synchronization", JOURNAL OF THE KOREAN PHYSICAL SOCIETY, August 2019 Vol. 77, Num. 2, Page 145-152, August 2019,
- 100 Zahra Faghani, Fahimeh Nazarimehr, Sajad Jafari, Julien C. Sprott, "Simple chaotic systems with specific analytical solutions", INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS, August 2019 Vol. 29, Num. 9, Page 1-11, August 2019,
- 101 Alireza Bahramian, Ali Nouri, Golnaz Baghdadi, Shahriar Gharibzadeh, Farzad Towhidkhal, Sajad Jafari, "Introducing a chaotic map with a wide range of long-term memory as a model of patch-clamped ion channels current time series", CHAOS SOLITONS & FRACTALS, July 2019 Vol. 126, Num. 1, Page 361-368, July 2019,
- 102 Yasser Shekofteh, Sajad Jafari, Karthikeyan Rajagopal, "Cost Function based on Hidden Markov Models for Parameter Estimation of Chaotic Systems", SOFT COMPUTING, July 2019 Vol. 23, Num. 13, Page 4765-4776, July 2019,
- 103 Sarbendu Rakshit, Zahra Faghani, Fatemeh Parastesh Karegar, Shirin Panahi, Sajad Jafari, Dibakar Ghosh, Matjaz Perc, "Transitions from chimeras to coherence: An analytical approach by means of the coherent stability function", PHYSICAL REVIEW E, July 2019 Vol. 100, Num. 0, Page 1-12, July 2019,

- 104 Soodeh Mostaghimi, Fahimeh Nazarimehr, Sajad Jafari, Jun Ma, "Chemical and electrical synapse-modulated dynamical properties of coupled neurons under magnetic flow", *APPLIED MATHEMATICS AND COMPUTATION*, May 2019 Vol. 384, Num. 1, Page 42-56, May 2019,
- 105 Hedieh Ali Pour, Hamidreza Namazi, Hamed Azarnoush, Sajad Jafari, "Complexity-Based Analysis Of The Relation Between Moving Visual Stimuli And Human Eye Movement", *FRACTALS-COMPLEX GEOMETRY PATTERNS AND SCALING IN NATURE AND SOCIETY*, May 2019 Vol. 27, Num. 3, Page 1-17, May 2019,
- 106 Hamidreza Namazi, Sajad Jafari, "Decoding Of Simple Hand Movements By Fractal Analysis Of Electromyography (EMG) Signal", *FRACTALS-COMPLEX GEOMETRY PATTERNS AND SCALING IN NATURE AND SOCIETY*, May 2019 Vol. 27, Num. 4, Page 1-9, May 2019,
- 107 Hedieh Ali Pour, Hamidreza Namazi, Hamed Azarnoush, Sajad Jafari, "Fractal-Based Analysis Of The Influence Of Color Tonality On Human Eye Movements", *FRACTALS-COMPLEX GEOMETRY PATTERNS AND SCALING IN NATURE AND SOCIETY*, April 2019 Vol. 27, Num. 3, Page 1-8, April 2019,
- 108 Karthikeyan Rajagopal, Fatemeh Parastesh Karegar, Hamed Azarnoush, Boshra Hatef, Sajad Jafari, Vesna Berec, "Spiral waves in externally excited neuronal network: Solvable model with a monotonically differentiable magnetic flux", *CHAOS*, April 2019 Vol. 29, Num. 4, Page 1-23, April 2019,
- 109 Zahra Shahriari, Fatemeh Parastesh Karegar, Mahdi Jalili, Vesna Berec, Jun Ma, Sajad Jafari, "The role of coupling factors on the emergence of synchronization and chimera patterns in network of non-locally coupled pancreatic beta-cells", *EPL*, April 2019 Vol. 125, Num. 6, Page 1-6, April 2019,
- 110 Hamidreza Namazi, Sajad Jafari, "Estimating Of Brain Development In Newborns By Fractal Analysis Of Sleep Electroencephalographic (EEG) Signal", *FRACTALS-COMPLEX GEOMETRY PATTERNS AND SCALING IN NATURE AND SOCIETY*, April 2019 Vol. 27, Num. 3, Page 1-16, April 2019,
- 111 Hamidreza Namazi, Sajad Jafari, "Decoding Of Wrist Movements' Direction By Fractal Analysis Of Magnetoencephalography (Meg) Signal", *FRACTALS-COMPLEX GEOMETRY PATTERNS AND SCALING IN NATURE AND SOCIETY*, March 2019 Vol. 27, Num. 2, Page 1-13, March 2019,
- 112 Karthikeyan Rajagopal, Sajad Jafari, Viet-Thanh Pham, Zhouchao Wei, Durairaj Premraj, Kathamuthu Thamilaran, Anitha Karthikeyan, "Antimonotonicity, Bifurcation And Multistability In The Vallis Model For El Niño", *INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS*, March 2019 Vol. 29, Num. 3, Page 1-15, March 2019,
- 113 Karthikeyan Rajagopal, Sajad Jafari, Sezgin Kacar, Anitha Karthikeyan, Akif Akgul, "Fractional Order Simple Chaotic Oscillator With Saturable Reactors And Its Engineering Applications", *INFORMATION TECHNOLOGY AND CONTROL*, March 2019 Vol. 48, Num. 1, Page 115-128, March 2019,
- 114 Fatemeh Parastesh Karegar, Sajad Jafari, Hamed Azarnoush, "Spiral Waves Formation in a Network of Neuron Model with Monotonically Differentiable Magnetic Flux", *Iranian Journal of Biomedical Engineering*, March 2019 Vol. 13, Num. 1, Page 85-93, March 2019,
- 115 Hedieh Ali Pour, Hamidreza Namazi, Hamed Azarnoush, Sajad Jafari, "Complexity based analysis of the influence of visual stimulus color on human eye movement", *FRACTALS-COMPLEX GEOMETRY PATTERNS AND SCALING IN NATURE AND SOCIETY*, March 2019 Vol. 27, Num. 2, Page 1-15, March 2019,
- 116 Atiyeh Bayani, Karthikeyan Rajagopal, Abdul Jalil M. Khalaf, Sajad Jafari, Gervais Dolvis Leutcho, Kengne Jacques, "Dynamical analysis of a new multistable chaotic system with hidden attractor: Antimonotonicity, coexisting multiple attractors, and offset boosting", *PHYSICS LETTERS A*, February 2019 Vol. 383, Num. 13, Page 1450-1456, February 2019,
- 117 Sajad Jafari, Julien Clinton Sprott, Soroush Dehghan, "Categories Of Conservative Flows", *INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS*, February 2019 Vol. 29, Num. 2, Page 1-16, February 2019,
- 118 Viet-Thanh Pham, Sajad Jafari, Christos Volos, Luigi Fortuna, "Simulation And Experimental Implementation Of A Line-Equilibrium System Without Linear Term", *CHAOS SOLITONS & FRACTALS*, February 2019 Vol. 120, Num. 1, Page 213-221, February 2019,
- 119 Mohadeseh Shafiei Kafraj, Fatemeh Parastesh Karegar, Mahdi Jalili, Sajad Jafari, Matjaž Perc, Mitja Slavinec, "Effects of partial time delays on synchronization patterns in Izhikevich neuronal networks", *EUROPEAN PHYSICAL JOURNAL B*, February 2019 Vol. 92, Num. 2, Page 1-7, February 2019,

- 120 Hedieh Ali Pour, Farzad Towhidkhan, Sajad Jafari, Avinash Menon, Hamidreza Namazi, "Complexity-Based Analysis Of The Relation Between Fractal Visual Stimuli And Fractal Eye Movements", FLUCTUATION AND NOISE LETTERS, February 2019 Vol. 18, Num. 3, Page 1-14, February 2019,
- 121 Xiong Wang, Unal Cavu?O?Lu, Sezgin Kacar, Akif Akgul, Viet-Thanh Pham, Sajad Jafari, Fawaz E. Alsaadi, Xuan Quynh Nguyen, "S-Box Based Image Encryption Application Using A Chaotic System Without Equilibrium", Applied Sciences, February 2019 Vol. 9, Num. 4, Page 1-17, February 2019,
- 122 Fatemeh Parastesh Karegar, Sajad Jafari, "Different properties of neuronal networks matter for the emergence of chimera states: Comment on "Chimera states in neuronal networks: A review" by Majhi et al.", PHYSICS OF LIFE REVIEWS, February 2019 Vol. 28, Num. 1, Page 128-130, February 2019,
- 123 Karthikeyan Rajagopal, Fahimeh Nazarimehr, Laarem Guessas, Anitha Karthikeyan, Ashokkumar Srinivasan, Sajad Jafari, "Analysis, Control and FPGA Implementation of a Fractional Order Modified Shinriki Circuit", JOURNAL OF CIRCUITS SYSTEMS AND COMPUTERS, January 2019 Vol. 28, Num. 14, Page 1-25, January 2019,
- 124 Viet-Thanh Pham, Sundarapandian Vaidyanathan, Christos Volos, Sajad Jafari, Fawaz E. Alsaadi, Fuad E. Alsaadi, "Chaos In A Simple Snap System With Only One Nonlinearity, Its Adaptive Control And Real Circuit Design", Archives of Control Sciences, January 2019 Vol. 29, Num. 1, Page 73-96, January 2019,
- 125 Fatemeh Parastesh Karegar, Hamed Azarnoush, Sajad Jafari, Boshra Hatef, Matjaz Perc, Robert Repnik, "Synchronizability of two neurons with switching in the coupling", APPLIED MATHEMATICS AND COMPUTATION, January 2019 Vol. 350, Num. 1, Page 217-223, January 2019,
- 126 Hamidreza Namazi, Asieh Daneshi, Touraj Shirzadegan, Hamed Azarnoush, Sajad Jafari, "Information-Based Analysis of the Relation Between Visual Stimuli and Human Eye Movements", FLUCTUATION AND NOISE LETTERS, December 2018 Vol. 18, Num. 1, Page 1-11, December 2018,
- 127 Karthikeyan Rajagopal, Fahimeh Nazarimehr, Anitha Karthikeyan, سرينيواسان, Sajad Jafari, "Fractional order Synchronous Reluctance motor: Analysis, Chaos Control and FPGA implementation", ASIAN JOURNAL OF CONTROL, December 2018 Vol. 20, Num. 6, Page 1-15, December 2018,
- 128 Mahdi Nourian Zavareh, Fahimeh Nazarimehr, Karthikeyan Rajagopal, Sajad Jafari, "Hidden Attractor in a Passive Motion Model of Compass-Gait Robot", INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS, December 2018 Vol. 28, Num. 14, Page 1-9, December 2018,
- 129 Fahimeh Nazarimehr, Aboozar Ghaffari, Sajad Jafari, Mohammadreza Hashemigolpayegany, "Sparse Recovery and Dictionary Learning to Identify the Nonlinear Dynamical Systems: One Step Toward Finding Bifurcation Points in Real Systems", INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS, November 2018 Vol. 29, Num. 3, Page 1-17, November 2018,
- 130 Sajad Jafari, Tomasz Kapitaniak, Karthikeyan Rajagopal, Viet-Thanh Pham, Fawaz E. Alsaadi, "The Effect Of Epistasis On The Performance Of Genetic Algorithms", JOURNAL OF ZHEJIANG UNIVERSITY-SCIENCE A, November 2018 Vol. 20, Num. 2, Page 109-116, November 2018,
- 131 Karthikeyan Rajagopal, Atiyeh Bayani, Abdul Jalil M.Khalaf, Hamidreza Namazi, Sajad Jafari, Viet-Thanh Pham, "A no-equilibrium memristive system with four-wing hyperchaotic attractor", AEU-INTERNATIONAL JOURNAL OF ELECTRONICS AND COMMUNICATIONS, October 2018 Vol. 95, Num. 1, Page 207-215, October 2018,
- 132 Mohammadali Ahmadi Pajouh, Tirdad Seifi Ala, Fatemeh Zamanian Najafabadi, Hamidreza Namazi, Sajad Jafari, "FRACTAL-BASED CLASSIFICATION OF HUMAN BRAIN RESPONSE TO LIVING AND NON-LIVING VISUAL STIMULI", FRACTALS-COMPLEX GEOMETRY PATTERNS AND SCALING IN NATURE AND SOCIETY, October 2018 Vol. 26, Num. 5, Page 1-7, October 2018,
- 133 Jay Prakash Singh, Viet-Thanh Pham, Tasawar Hayat, Sajad Jafari, Fawaz E. Alsaadi, Binoy Krishna Roy, "A New Four-Dimensional Hyperjerk System With Stable Equilibrium Point, Circuit Implementation, And Its Synchronization By Using An Adaptive Integrator Backstepping Control", CHINESE PHYSICS B, October 2018 Vol. 27, Num. 10, Page 1-10, October 2018,
- 134 Tomasz Kapitaniak, Sajad Jafari, "Nonlinear Effects In Life Sciences", EUROPEAN PHYSICAL JOURNAL-SPECIAL TOPICS, October 2018 Vol. 227, Num. 0, Page 693-696, October 2018,
- 135 Yasser Shekofteh, Sajad Jafari, Karthikeyan Rajagopal, Viet-Thanh Pham, "Parameter Identification of Chaotic Systems Using a Modified Cost Function Including Static and Dynamic Information of Attractors in the State Space", CIRCUITS SYSTEMS AND SIGNAL PROCESSING, October 2018 Vol. 38, Num. 5, Page 2039-2054, October 2018,

- 136 Zahra Rostami, Sajad Jafari, Matjaz Perc, Mitja Slavinec, "Elimination Of Spiral Waves In Excitable Media By Magnetic Induction", *NONLINEAR DYNAMICS*, October 2018 Vol. 94, Num. 1, Page 679-692, October 2018,
- 137 Zahra Faghani, Zahra Arab, Fatemeh Parastesh Karegar, Sajad Jafari, Matja?Perc, Mitja Slavinec, "Effects of different initial conditions on the emergence of chimera states", *CHAOS SOLITONS & FRACTALS*, September 2018 Vol. 114, Num. 1, Page 306-311, September 2018,
- 138 Karthikeyan Rajagopal, Serdar Cicek, Peiman Naseradinmousavi, Abdul Jalil M. Khalaf, Sajad Jafari, Anitha Karthikeyan, "A Novel Parametrically Controlled Multi-Scroll Chaotic Attractor Along With Electronic Circuit Design", *The European Physical Journal Plus*, September 2018 Vol. 133, Num. 9, Page 1-8, September 2018,
- 139 Hadi Jahanshahi, Karthikeyanrajagopal, Akif Akgul, Naeimeh Najafizadeh Sari, Hamidrezanamazi, Sajad Jafari, "Complete analysis and engineering applications of a megastable nonlinear oscillator", *INTERNATIONAL JOURNAL OF NON-LINEAR MECHANICS*, September 2018 Vol. 107, Num. 1, Page 126-136, September 2018,
- 140 Payam Sadeghi Shabestari, Karthikeyan Rajagopal, Bahareh Safarballi, Sajad Jafari, Prakash Duraisamy, "A Novel Approach to Numerical Modeling of Metabolic System: Investigation of Chaotic Behavior in Diabetes Mellitus", *COMPLEXITY*, September 2018 Vol. 2018, Num. 681519, Page 1-11, September 2018,
- 141 Shirin Panahi, Sajad Jafari, Abdul Jalil M. Khalaf, Karthikeyan Rajagopal, Viet-Thanh Pham, Fawaz E. Alsaadi, "Complete Dynamical Analysis Of A Neuron Under Magnetic Flow Effect", *CHINESE JOURNAL OF PHYSICS*, August 2018 Vol. 56, Num. 5, Page 2254-2264, August 2018,
- 142 Atiyeh Bayani, Sajad Jafari, Julien Clinton Sprott, Boshra Hatem, "A chaotic model of migraine headache considering the dynamical transitions of this cyclic disease", *EPL*, August 2018 Vol. 123, Num. 1, Page 1-6, August 2018,
- 143 Zhouchao Wei, Fatemeh Parastesh Karegar, Hamed Azarnoush, Sajad Jafari, Dibakar Ghosh, Matja? Perc, Mitja Slavinec, "Nonstationary chimeras in a neuronal network", *EPL*, August 2018 Vol. 123, Num. 4, Page 1-5, August 2018,
- 144 Victor Kamdoum Tamba, Viet-Thanh Pham, Duy Vo Hoang, Sajad Jafari, Fawaz E. Alsaadi, Fuad E. Alsaadi, "Dynamic System With No Equilibrium And Its Chaos Anti-Synchronization", *AUTOMATICA*, July 2018 Vol. 59, Num. 1, Page 35-42, July 2018,
- 145 Marjan Mozaffarilegha, Hamidreza Namazi, Mohsen Ahadi, Sajad Jafari, "Complexity-Based Analysis Of The Difference In Speech-Evoked Auditory Brainstem Responses (S-Abrs) Between Binaural And Monaural Listening Conditions", *FRACTALS-COMPLEX GEOMETRY PATTERNS AND SCALING IN NATURE AND SOCIETY*, July 2018 Vol. 26, Num. 4, Page 1-7, July 2018,
- 146 Fahimeh Nazarimehr, Sajad Jafari, Mohammadreza Hashemigolpayegany, Matja? Perc, Julien C. Sprott, "Predicting tipping points of dynamical systems during a period-doubling route to chaos", *CHAOS*, July 2018 Vol. 28, Num. 7, Page 1-10, July 2018,
- 147 Hamidreza Namazi, Sajad Jafari, "Age-Based Variations Of Fractal Structure Of EEG Signal In Patients With Epilepsy", *FRACTALS-COMPLEX GEOMETRY PATTERNS AND SCALING IN NATURE AND SOCIETY*, July 2018 Vol. 26, Num. 4, Page 1-12, July 2018,
- 148 Karthikeyan Rajagopal, Akif Akgul, Sajad Jafari, Anitha Karthikeyan, Unal Cavu?O?Lu, Sezgin Kacar, "An Exponential Jerk System: Circuit Realization, Fractional Order And Time Delayed Form With Dynamical Analysis And Its Engineering Application", *JOURNAL OF CIRCUITS SYSTEMS AND COMPUTERS*, July 2018 Vol. 28, Num. 5, Page 1-11, July 2018,
- 149 Atiyeh Bayani, Mohammad Ali Jafari, Karthikeyan Rajagopal, Haibo Jiang, Sajad Jafari, "A Novel Fractional-Order Chaotic System with Specific Topology: From Proposing to FPGA Implementation", *EUROPEAN PHYSICAL JOURNAL-SPECIAL TOPICS*, July 2018 Vol. 226, Num. 16, Page 3729-3745, July 2018,
- 150 Shaobo He, Chunbiao Li, Kehui Sun, Sajad Jafari, "Multivariate Multiscale Complexity Analysis Of Self-Reproducing Chaotic Systems", *ENTROPY*, July 2018 Vol. 20, Num. 8, Page 1-14, July 2018,
- 151 Xiong Wang, Sifeu Takougang Kingni, Christos Volos, Viet-Thanh Pham, Duy Vo Hoang, Sajad Jafari, "A Fractional System With Five Terms: Analysis, Circuit, Chaos Control And Synchronization", *INTERNATIONAL JOURNAL OF ELECTRONICS*, July 2018 Vol. 106, Num. 1, Page 109-120, July 2018,
- 152 Jes?S Manuel Mu?Oz-Pacheco, Ernesto Zambrano-Serrano, Christos Volos, Sajad Jafari, Jacques Kengne, Karthikeyan Rajagopal, "A New Fractional-Order Chaotic System With Different Families Of Hidden And Self-Excited Attractors", *ENTROPY*, July 2018 Vol. 20, Num. 8, Page 1-18, July 2018,

- 153 Shirin Panahi, Julien C. Sprott, Sajad Jafari, "Two simplest quadratic chaotic maps without equilibrium", INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS, June 2018 Vol. 28, Num. 12, Page 1-7, June 2018,
- 154 Marjan Mozaffarilegha, Hamidreza Namazi, Ali Akbar Tahaei, Sajad Jafari, "Complexity-Based Analysis Of The Difference Between Normal Subjects And Subjects With Stuttering In Speech Evoked Auditory Brainstem Response", JOURNAL OF MEDICAL AND BIOLOGICAL ENGINEERING, June 2018 Vol. 39, Num. 4, Page 490-497, June 2018,
- 155 Zahra Rostami, Viet-Thanh Pham, Sajad Jafari, Fatemeh Hadaeghi, Jun Ma, "Taking Control Of Initiated Propagating Wave In A Neuronal Network Using Magnetic Radiation", APPLIED MATHEMATICS AND COMPUTATION, June 2018 Vol. 338, Num. 1, Page 141-151, June 2018,
- 156 Karthikeyan Rajagopal, Serdar Cicek, Viet-Thanh Pham, Sajad Jafari, Anitha Karthikeyan, "A Novel Class Of Chaotic Systems With Different Shapes Of Equilibrium And Microcontroller-Based Cost-Effective Design For Digital Applications", The European Physical Journal Plus, June 2018 Vol. 133, Num. 6, Page 1-11, June 2018,
- 157 Zahra Rostami, Karthikeyan Rajagopal, Abdul Jalil M. Khalaf, Sajad Jafari, Matjaz Perc, Mitja Slavinec, "Wavefront-obstacle interactions and the initiation of reentry in excitable media", PHYSICA A-STATISTICAL MECHANICS AND ITS APPLICATIONS, June 2018 Vol. 509, Num. 1, Page 1162-1173, June 2018,
- 158 Ke Ding, Zahra Rostami, Sajad Jafari, Boshra Hatef, "Investigation Of Cortical Signal Propagation And The Resulting Spatiotemporal Patterns In Memristor-Based Neuronal Network", COMPLEXITY, June 2018 Vol. 2018, Num. 1, Page 1-20, June 2018,
- 159 Unal Cavusoglu, Shirin Panahi, Akif Akgu, Sajad Jafari, Sezgin Kaçar, "A new chaotic system with hidden attractor and its engineering applications: analog circuit realization and image encryption", ANALOG INTEGRATED CIRCUITS AND SIGNAL PROCESSING, June 2018 Vol. 98, Num. 1, Page 85-99, June 2018,
- 160 Zhouchao Wei, Viet-Thanh Pham, Abdul Jalil M. Khalaf, Jacques Kengne, Sajad Jafari, "A Modified Multistable Chaotic Oscillator", INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS, June 2018 Vol. 28, Num. 7, Page 1-9, June 2018,
- 161 Karthikeyan Rajagopal, Hadi Jahanshahi, Metin Varan, Ihsan Bay?R, Viet-Thanh Pham, Sajad Jafari, Anitha Karthikeyan, "A Hyperchaotic Memristor Oscillator With Fuzzy Based Chaos Control And LQR Based Chaos Synchronization", AEU-INTERNATIONAL JOURNAL OF ELECTRONICS AND COMMUNICATIONS, June 2018 Vol. 94, Num. 1, Page 55-68, June 2018,
- 162 Sundarapandian Vaidyanathan, Sajad Jafari, Viet-Thanh Pham, Ahmad Taher Azar, Fawaz E. Alsaadi, "A 4-D Chaotic Hyperjerk System With A Hidden Attractor, Adaptive Backstepping Control And Circuit Design", Archives of Control Sciences, June 2018 Vol. 28, Num. 2, Page 239-254, June 2018,
- 163 Payam Sadeghi Shabestari, Shirin Panahi, Boshra Hatef, Sajad Jafari, Julien Clinton Sprott, "A New Chaotic Model for Glucose-Insulin Regulatory System", CHAOS SOLITONS & FRACTALS, May 2018 Vol. 112, Num. 1, Page 44-51, May 2018,
- 164 Karthikeyan Rajagopal, Serdar Ciçek, Abdul Jalil M Khalaf, Viet-Thanh Pham, Sajad Jafari, Anitha Karthikeyan, Prakash Duraisamy, "A novel class of chaotic flows with infinite equilibriums and their application in chaos-based communication design using DCSK", ZEITSCHRIFT FÜR NATURFORSCHUNG SECTION A-A JOURNAL OF PHYSICAL SCIENCES, May 2018 Vol. 73, Num. 7, Page 609-617, May 2018,
- 165 Hamidreza Namazi, Asieh Daneshi, Hamed Azarnoush, Sajad Jafari, Farzad Towhidkhan, "FRACTAL-BASED ANALYSIS OF THE INFLUENCE OF AUDITORY STIMULI ON EYE MOVEMENTS", FRACTALS-COMPLEX GEOMETRY PATTERNS AND SCALING IN NATURE AND SOCIETY, May 2018 Vol. 26, Num. 3, Page 1-6, May 2018,
- 166 Karthikeyan Rajagopal, Fahimeh Nazarimehr, Sajad Jafari, Anitha Karthikeyan, "Fractional and non-fractional chaotic amphibian attractors with self excited-hidden properties: Numerical dynamics, circuit realization and FPGA-based applications", EUROPEAN PHYSICAL JOURNAL-SPECIAL TOPICS, May 2018 Vol. 226, Num. 1, Page 3827-3850, May 2018,
- 167 Sajad Jafari, Soroush Dehghan, Guanrong Chen, Sifeu Takougang Kingni, Karthikeyan Rajagopal, "Twin birds inside and outside the cage", CHAOS SOLITONS & FRACTALS, May 2018 Vol. 112, Num. 1, Page 135-140, May 2018,
- 168 Shirin Panahi, Touraj Shirzadian, Mahdi Jalili, Sajad Jafari, "A new chaotic network model for epilepsy", APPLIED MATHEMATICS AND COMPUTATION, April 2018 Vol. 346, Num. 1, Page 395-407, April 2018,

- 169 Saeed Montazeri Moghadam, Maryam Sadeghi Talarposhti, Ali Niaty, Farzad Towhidkhah, Sajad Jafari, "The simple chaotic model of passive dynamic walking", *NONLINEAR DYNAMICS*, April 2018 Vol. 93, Num. 3, Page 1183-1199, April 2018,
- 170 Karthikeyan Rajagopal, Sajad Jafari, Akif Akgul, Anitha Karthikeyan, "Modified jerk system with self-exciting and hidden flows and the effect of time delays on existence of multi-stability", *NONLINEAR DYNAMICS*, April 2018 Vol. 93, Num. 3, Page 1087-1108, April 2018,
- 171 Karthikeyan Rajagopal, Sajad Jafari, Akif Akgul, Anitha Karthikeyan, Serdar Cicek, Yasser Shekofteh, "A simple snap oscillator with co-existing attractors, its time delayed form, circuit implementation and communication designs", *ZEITSCHRIFT FUR NATURFORSCHUNG SECTION A-A JOURNAL OF PHYSICAL SCIENCES*, April 2018 Vol. 73, Num. 5, Page 385-398, April 2018,
- 172 Fahimeh Nazarimehr, Karthikeyan Rajagopal, Jacques Kengne, Sajad Jafari, Viet-Thanh Pham, "A new four-dimensional system containing chaotic or hyper-chaotic attractors with no equilibrium, a line of equilibria and unstable equilibria", *CHAOS SOLITONS & FRACTALS*, April 2018 Vol. 111, Num. 0, Page 108-118, April 2018,
- 173 Hamid Reza Abdolmohammadi, Abdul Jalil M. Khalaf, Shirin Panahi, Karthikeyan Rajagopal, Viet-Thanh Pham, Sajad Jafari, "A new 4D chaotic system with hidden attractor and its engineering applications: Analog circuit design and field programmable gate array implementation", *PRAMANA-JOURNAL OF PHYSICS*, April 2018 Vol. 90, Num. 6, Page 1-7, April 2018,
- 174 Karthikeyan Rajagopal, Viet-Thanh Pham, Fadhil Rahma Tahir, Akif Akgul, Hamid Reza Abdolmohammadi, Sajad Jafari, "A chaotic jerk system with non-hyperbolic equilibrium: Dynamics, effect of time delay and circuit realization", *PRAMANA-JOURNAL OF PHYSICS*, March 2018 Vol. 90, Num. 4, Page 52-60, March 2018,
- 175 Sara Kamali, Shahriar Gharibzadeh, Sajad Jafari, "A new look to coma from the viewpoint of nonlinear dynamics", *NONLINEAR DYNAMICS*, March 2018 Vol. 92, Num. 4, Page 2119-2131, March 2018,
- 176 Sajad Jafari, Atefeh Ahmadi, Abdul Jalil M Khalaf, Hamid Reza Abdolmohammadi, Viet-Thanh Pham, Fawaz E. Alsaadi, "A new hidden chaotic attractor with extreme multi-stability", *AEU-INTERNATIONAL JOURNAL OF ELECTRONICS AND COMMUNICATIONS*, March 2018 Vol. 89, Num. 1, Page 131-135, March 2018,
- 177 Shirin Panahi, Zainab Aram, Sajad Jafari, Viet-Thanh Pham, Christos Volos, Karthikeyan Rajagopal, "A new transiently chaotic flow with an ellipsoid equilibria", *PRAMANA-JOURNAL OF PHYSICS*, February 2018 Vol. 90, Num. 31, Page 1-7, February 2018,
- 178 Sajad Jafari, Atefeh Ahmadi, Shirin Panahi, Karthikeyan Rajagopal, "Extreme multi-stability: When imperfection changes quality", *CHAOS SOLITONS & FRACTALS*, February 2018 Vol. 108, Num. 1, Page 182-186, February 2018,
- 179 Shuili Ren, Shirin Panahi, Karthikeyan Rajagopal, Akif Akgul, Viet-Thanh Pham, Sajad Jafari, "A new chaotic flow with hidden attractor: the first hyperjerk system with no equilibrium", *ZEITSCHRIFT FUR NATURFORSCHUNG SECTION A-A JOURNAL OF PHYSICAL SCIENCES*, February 2018 Vol. 73, Num. 3, Page 239-249, February 2018,
- 180 Olfa Boubaker, Sajad Jafari, Christos Volos, Zeraouia Elhadj, Viet-Thanh Pham, Jinde Cao, "Editorial: Advanced Topics in Modeling, Bifurcation Analysis, and Control Theory of Complex Systems", *COMPLEXITY*, February 2018 Vol. 2018, Num. 941747, Page 1-3, February 2018,
- 181 Yan-Xia Tang, Abdul Jalil M Khalaf, Karthikeyan Rajagopal, Viet-Thanh Pham, Sajad Jafari, Ye Tian, "A new nonlinear oscillator with infinite number of coexisting hidden and self-excited attractors", *CHINESE PHYSICS B*, February 2018 Vol. 27, Num. 4, Page 1-6, February 2018,
- 182 Atiyeh Bayani, Heng Chen, Akif Akgul, Mohammad-Ali Jafari, Viet-Thanh Pham, Xiong Wang, Sajad Jafari, "A flexible chaotic system with adjustable amplitude, largest Lyapunov exponent, and local Kaplan-Yorke dimension and its usage in engineering applications", *NONLINEAR DYNAMICS*, February 2018 Vol. 92, Num. 4, Page 1791-1800, February 2018,
- 183 Zahra Rostami, Sajad Jafari, "Defects formation and spiral waves in a network of neurons in presence of electromagnetic induction", *COGNITIVE NEURODYNAMICS*, January 2018 Vol. 12, Num. 2, Page 235-254, January 2018,
- 184 Karthikeyan Rajagopal, Sajad Jafari, Anitha Karthikeyan, Ashokkumar Srinivasan, Biniyam Ayele, "Hyperchaotic memcapacitor oscillator with infinite equilibria and coexisting attractors", *CIRCUITS SYSTEMS AND SIGNAL PROCESSING*, January 2018 Vol. 37, Num. 9, Page 3702-3724, January 2018,

- 185 Shirin Panahi, Sajad Jafari, "New synchronization index of non-identical networks", *Discrete and Continuous Dynamical Systems-Series S*, January 2018 Vol. 0, Num. 0, Page 1-15, January 2018,
- 186 Saleh Mobayen, Sifeu Takougang Kingni, Viet-Thanh Pham, Fahimeh Nazarimehr, Sajad Jafari, "Analysis, synchronization and circuit design of a new highly nonlinear chaotic system", *INTERNATIONAL JOURNAL OF SYSTEMS SCIENCE*, December 2017 Vol. 49, Num. 3, Page 617-630, December 2017,
- 187 Karthikeyan Rajagopal, Sajad Jafari, Guessas Laarem, "Time delayed chameleon: Analysis, synchronization and FPGA implementation", *PRAMANA-JOURNAL OF PHYSICS*, December 2017 Vol. 0, Num. 0, Page 89-92, December 2017,
- 188 Fahimeh Nazarimehr, Sajad Jafari, Guanrong Chen, Tomasz Kapitaniak, Nikolay Vladimirovich Kuznetsov, Gennady Leonov, Chunbiao Li, Zhouchao Wei, "A Tribute to J. C. Sprott", *INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS*, December 2017 Vol. 27, Num. 14, Page 1-14, December 2017,
- 189 Jay Prakash Singh, Binoy Krishna Roy, Sajad Jafari, "New Family of 4-D Hyperchaotic and Chaotic Systems with Quadric Surfaces of Equilibria", *CHAOS SOLITONS & FRACTALS*, December 2017 Vol. 106, Num. 1, Page 243-257, December 2017,
- 190 Karthikeyan Rajagopal, Akif Akgul, Sajad Jafari, Burak Aricioglu, "A chaotic memcapacitor oscillator with two unstable equilibriums and its fractional form with engineering applications", *NONLINEAR DYNAMICS*, November 2017 Vol. 91, Num. 2, Page 957-974, November 2017,
- 191 Gaetan Fautso Kuate, Karthikeyan Rajagopal, Sifeu Takougang Kingni, Victor Kamdoun Tamba, Sajad Jafari, "Autonomous Van Der Pol–Duffing Snap Oscillator: Analysis, Synchronization And Applications To Real-Time Image Encryption", *International Journal of Dynamics and Control*, November 2017 Vol. 6, Num. 3, Page 1008-1022, November 2017,
- 192 Jacques Kengne, Sajad Jafari, Zeric T. Njitacke, Mahdi Yousefi Azar Khanian, André Cheukem, "Dynamic analysis and electronic circuit implementation of a novel 3D autonomous system without linear terms", *COMMUNICATIONS IN NONLINEAR SCIENCE AND NUMERICAL SIMULATION*, November 2017 Vol. 52, Num. 1, Page 62-76, November 2017,
- 193 Shirin Panahi, Zainab Aram, Sajad Jafari, Jun Ma, Julien Clinton Sprott, "Modeling of epilepsy based on chaotic artificial neural network", *CHAOS SOLITONS & FRACTALS*, November 2017 Vol. 105, Num. 1, Page 150-156, November 2017,
- 194 Fahimeh Nazarimehr, Sajad Jafari, Mohammadreza Hashemigolpayegany, Louis H. Kauffman, "Investigation of bifurcations in the process equation", *INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS*, October 2017 Vol. 27, Num. 13, Page 1-18, October 2017,
- 195 Zhen Wang, Zhe Xu, Ezzedine Mliki, Akif Akgul, Viet-Thanh Pham, Sajad Jafari, "A new chaotic attractor around a pre-located ring", *INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS*, September 2017 Vol. 27, Num. 10, Page 1-10, September 2017,
- 196 Viet-Thanh Pham, Christos Volos, Sajad Jafari, Tomasz Kapitaniak, "A Novel Cubic–Equilibrium Chaotic System with Coexisting Hidden Attractors: Analysis, and Circuit Implementation", *JOURNAL OF CIRCUITS SYSTEMS AND COMPUTERS*, August 2017 Vol. 27, Num. 4, Page 1-18, August 2017,
- 197 Viet-Thanh Pham, Christos Volos, Tomasz Kapitaniak, Sajad Jafari, Xiong Wang, "Dynamics and circuit of a chaotic system with a curve of equilibrium points", *INTERNATIONAL JOURNAL OF ELECTRONICS*, August 2017 Vol. 105, Num. 3, Page 385-397, August 2017,
- 198 Viet-Thanh Pham, Akif Akgul, Christos Volos, Sajad Jafari, Tomasz Kapitaniak, "Dynamics and circuit realization of a no–equilibrium chaotic system with a boostable variable", *AEU-INTERNATIONAL JOURNAL OF ELECTRONICS AND COMMUNICATIONS*, August 2017 Vol. 78, Num. 1, Page 134-140, August 2017,
- 199 Viet-Thanh Pham, Sifeu Takougang Kingni, Christos Volos, Sajad Jafari, Tomasz Kapitaniak, "A simple three-dimensional fractional-order chaotic system without equilibrium: Dynamics, circuitry implementation, chaos control and synchronization", *AEU-INTERNATIONAL JOURNAL OF ELECTRONICS AND COMMUNICATIONS*, August 2017 Vol. 78, Num. 1, Page 220-227, August 2017,
- 200 Viet-Thanh Pham, Sajad Jafari, Christos Volos, Tomasz Kapitaniak, "Different families of hidden attractors in a new chaotic system with variable equilibrium", *INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS*, August 2017 Vol. 27, Num. 9, Page 1-10, August 2017,

- 201 Karthikeyan Rajagopal, Akif Akgul, Sajad Jafari, Anitha Karthikeyan, Ismail Koyuncu, "Chaotic chameleon: Dynamic analyses, circuit implementation, FPGA design, and fractional-order form with basic analyses", *CHAOS SOLITONS & FRACTALS*, July 2017 Vol. 103, Num. 0, Page 476-487, July 2017,
- 202 Viet-Thanh Pham, Christos Volos, Sifeu Takougang Kingni, Tomasz Kapitaniak, Sajad Jafari, "Bistable hidden attractors in a novel chaotic system with hyperbolic sine equilibrium", *CIRCUITS SYSTEMS AND SIGNAL PROCESSING*, July 2017 Vol. 37, Num. 3, Page 1028-1043, July 2017,
- 203 Xiaojian Xi, Saleh Mobayen, Haipeng Ren, Sajad Jafari, "Robust finite-time synchronization of a class of chaotic systems via adaptive global sliding mode control", *JOURNAL OF VIBRATION AND CONTROL*, June 2017 Vol. 24, Num. 17, Page 3842-3854, June 2017,
- 204 Julien Clinton Sprott, Sajad Jafari, Abdul Jalil M. Khalaf, Tomasz Kapitaniak, "Megastability: Coexistence of a countable infinity of nested attractors in a periodically-forced oscillator with spatially-periodic damping", *EUROPEAN PHYSICAL JOURNAL-SPECIAL TOPICS*, June 2017 Vol. 226, Num. 9, Page 1979-1985, June 2017,
- 205 Xiong Wang, Viet-Thanh Pham, Sajad Jafari, Christos Volos, Jesus Manuel Munoz-Pacheco, Esteban Tlelo-Cuautle, "A New Chaotic System With Stable Equilibrium: From Theoretical Model to Circuit Implementation", *IEEE ACCESS-OPEN*, June 2017 Vol. 5, Num. 1, Page 8851-8858, June 2017,
- 206 Sifeu Takougang Kingni, Viet-Thanh Pham, Sajad Jafari, Paul Wofo, "A chaotic system with an infinite number of equilibrium points located on a line and on a hyperbola and its fractional-order form", *CHAOS SOLITONS & FRACTALS*, June 2017 Vol. 99, Num. 1, Page 209-218, June 2017,
- 207 Viet-Thanh Pham, Xiong Wang, Sajad Jafari, Christos Volos, Tomasz Kapitaniak, "From Wang-Chen system with only one stable equilibrium to a new chaotic system without equilibrium", *INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS*, June 2017 Vol. 27, Num. 6, Page 1-9, June 2017,
- 208 Mohammad Ali Jafari, Ezzedine Mliki, Akif Akgul, Viet-Thanh Pham, Sifeu Takougang Kingni, Xiong Wang, Sajad Jafari, "Chameleon: the most hidden chaotic flow", *NONLINEAR DYNAMICS*, May 2017 Vol. 88, Num. 3, Page 2303-2317, May 2017,
- 209 Zhen Wang, Akif Akgul, Viet-Thanh Pham, Sajad Jafari, "Chaos-based application of a novel no-equilibrium chaotic system with coexisting attractors", *NONLINEAR DYNAMICS*, May 2017 Vol. 89, Num. 3, Page 1877-1887, May 2017,
- 210 Seyede Sanaz Hosseini, Fahimeh Nazarimehr, Sajad Jafari, "Investigation of seasonal and latitudinal effects on the expression of clock genes in *Drosophila*", *INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS*, April 2017 Vol. 27, Num. 10, Page 1-8, April 2017,
- 211 Esteban Tlelo-Cuautle, Luis Gerardo De La Fraga, Viet-Thanh Pham, Christos Volos, Sajad Jafari, Antonio De Jesus Quintas-Valles, "Dynamics, FPGA realization and application of a chaotic system with an infinite number of equilibrium points", *NONLINEAR DYNAMICS*, April 2017 Vol. 89, Num. 2, Page 1129-1139, April 2017,
- 212 Fahimeh Nazarimehr, Sajad Jafari, Mohammadreza Hashemigolpayegany, Julien Clinton Sprott, "Can Lyapunov exponent predict critical transitions in biological systems?", *NONLINEAR DYNAMICS*, April 2017 Vol. 88, Num. 2, Page 1493-1500, April 2017,
- 213 Viet-Thanh Pham, Sajad Jafari, Tomasz Kapitaniak, Christos Volos, Sifeu Takougang Kingni, "Generating a chaotic system with one stable equilibrium", *INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS*, April 2017 Vol. 27, Num. 4, Page 1-8, April 2017,
- 214 Zainab Aram, Sajad Jafari, Jun Ma, Julien Clinton Sprott, Sareh Zendehtrouh, Viet-Thanh Pham, "Using chaotic artificial neural networks to model memory in the brain", *COMMUNICATIONS IN NONLINEAR SCIENCE AND NUMERICAL SIMULATION*, March 2017 Vol. 44, Num. 1, Page 449-459, March 2017,
- 215 Fahimeh Nazarimehr, Batul Saeidi Abooeshaghi, Sajad Jafari, Julien Clinton Sprott, "Are perpetual points sufficient for locating hidden attractors?", *INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS*, March 2017 Vol. 27, Num. 3, Page 1-7, March 2017,
- 216 Sifeu Takougang Kingni, Sajad Jafari, Viet-Thanh Pham, Paul Wofo, "Constructing and analysing of a unique three-dimensional chaotic autonomous system exhibiting three families of hidden attractors", *MATHEMATICS AND COMPUTERS IN SIMULATION*, February 2017 Vol. 132, Num. 1, Page 172-182, February 2017,
- 217 Viet-Thanh Pham, Sajad Jafari, Christos Volos, "A novel chaotic system with heart-shaped equilibrium and its circuital implementation", *OPTIK*, February 2017 Vol. 131, Num. 1, Page 343-349, February 2017,

- 218 Viet-Thanh Pham, Christos Volos, Sajad Jafari, Tomasz Kapitaniak, "Coexistence of hidden chaotic attractors in a novel no-equilibrium system", *NONLINEAR DYNAMICS*, February 2017 Vol. 87, Num. 1, Page 2001-2010, February 2017,
- 219 Viet Thanh Pham, Sajad Jafari, Christos Volos, Tomas Gotthans, Xiong Wang, Duy Vo Hoang, "A chaotic system with rounded square equilibrium and with no-equilibrium", *OPTIK*, February 2017 Vol. 130, Num. 1, Page 365-371, February 2017,
- 220 Fahimeh Nazarimehr, Sajad Jafari, Mohammadreza Hashemigolpayegany, Julien Clinton Sprott, "Categorizing chaotic flows from the viewpoint of fixed points and perpetual points", *INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS*, February 2017 Vol. 27, Num. 2, Page 1-8, February 2017,
- 221 Sajad Jafari, Viet-Thanh Pham, Mohammadreza Hashemigolpayegany, Motahareh Moghtadaei, Sifeu Takougang Kingni, "The relationship between chaotic maps and some chaotic systems with hidden attractors", *INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS*, December 2016 Vol. 26, Num. 13, Page 1-8, December 2016,
- 222 Viet Thanh Pham, Sajad Jafari, Christos Volos, Tomasz Kapitaniak, "A gallery of chaotic systems with an infinite number of equilibrium points", *CHAOS SOLITONS & FRACTALS*, December 2016 Vol. 93, Num. 1, Page 58-63, December 2016,
- 223 Viet-Thanh Pham, Sajad Jafari, Tomasz Kapitaniak, "Constructing a chaotic system with an infinite number of equilibrium points", *INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS*, December 2016 Vol. 26, Num. 13, Page 1-7, December 2016,
- 224 Shirin Panahi, Sajad Jafari, Viet-Thanh Pham, Sifeu Takougang Kingni, Abdulhamid Zahedi, Seyed Hassan Sedighy, "Parameter Identification of a Chaotic Circuit with a Hidden Attractor Using Krill Herd Optimization", *INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS*, December 2016 Vol. 26, Num. 13, Page 1-11, December 2016,
- 225 Atiyeh Bayani, Fatemeh Hadaeghi, Sajad Jafari, Greg Murray, "Critical slowing down as an early warning of transitions in episodes of bipolar disorder: a simulation study based on a computational model of circadian activity rhythms", *CHRONOBIOLOGY INTERNATIONAL*, December 2016 Vol. 34, Num. 2, Page 235-245, December 2016,
- 226 Kosar Barati Sedeh, Sajad Jafari, Julien Clinton Sprott, Viet-Thanh Pham, "Simple chaotic flows with a curve of equilibria", *INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS*, November 2016 Vol. 26, Num. 12, Page 1-6, November 2016,
- 227 Viet Thanh Pham, Christos Volos, Sajad Jafari, Xiong Wang, Tomasz Kapitaniak, "A simple chaotic circuit with a light-emitting diode", *OPTOELECTRONICS AND ADVANCED MATERIALS-RAPID COMMUNICATIONS*, October 2016 Vol. 10, Num. 9, Page 640-646, October 2016,
- 228 Sajad Jafari, Julien Clinton Sprott, Viet-Thanh Pham, Christos Volos, Chunbiao Li, "Simple chaotic 3D flows with surfaces of equilibria", *NONLINEAR DYNAMICS*, October 2016 Vol. 86, Num. 2, Page 1349-1358, October 2016,
- 229 Viet-Thanh Pham, Sajad Jafari, Christos Volos, Sundarapandian Vaidyanathan, Tomasz Kapitaniak, "A chaotic system with infinite equilibria located on a piecewise linear curve", *OPTIK*, October 2016 Vol. 127, Num. 20, Page 9111-9117, October 2016,
- 230 Viet-Thanh Pham, Sajad Jafari, Christos Volos, Aggelos Giakoumis, Sundarapandian Vaidyanathan, Tomasz Kapitaniak, "A chaotic system with equilibria located on the rounded square loop and its circuit implementation", *IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS II-EXPRESS BRIEFS*, September 2016 Vol. 63, Num. 9, Page 878-882, September 2016,
- 231 Viet-Thanh Pham, Christos Volos, Sajad Jafari, Sundarapandian Vaidyanathan, Tomasz Kapitaniak, Xiong Wang, "A chaotic system with different families of hidden attractors", *INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS*, July 2016 Vol. 26, Num. 8, Page 1-9, July 2016,
- 232 Sajad Jafari, Julien Clinton Sprott, Maliheh Molaei, "A simple chaotic flow with a plane of equilibria", *INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS*, June 2016 Vol. 26, Num. 6, Page 1-6, June 2016,
- 233 Viet-Thanh Pham, Sajad Jafari, Xiong Wang, Jun Ma, "A chaotic system with different shapes of equilibria", *INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS*, May 2016 Vol. 26, Num. 4, Page 1-5, May 2016,

- 234 Fatemeh Hadaeghi, Mohammadreza Hashemigolpayegany, Sajad Jafari, Greg Murray, "Towards a complex system understanding of bipolar disorder: A chaotic model of abnormal circadian activity rhythms in euthymic bipolar disorder", AUSTRALIAN AND NEW ZEALAND JOURNAL OF PSYCHIATRY, May 2016 Vol. 0, Num. 0, Page 1-10, May 2016,
- 235 Dawid Dudkowski, Sajad Jafari, Tomasz Kapitaniak, Nikolay Kuznetsov, Gennady Leonov, Awadhesh Prasad, "Hidden Attractors in dynamical systems", PHYSICS REPORTS-REVIEW SECTION OF PHYSICS LETTERS, May 2016 Vol. 637, Num. 1, Page 1-50, May 2016,
- 236 Viet-Thanh Pham, Sajad Jafari, Sundarapandian, Christos Volos, Xiong Wang, "A novel memristive neural network with hidden attractors and its circuitry implementation", Science China Technological Sciences, March 2016 Vol. 59, Num. 3, Page 358-363, March 2016,
- 237 Viet-Thanh Pham, Sundarapandian Vaidyanathan, Cristos Volos, Sajad Jafari, Sifeu Takougang Kingni, "A no-equilibrium hyperchaotic system with a cubic nonlinear term", OPTIK, March 2016 Vol. 127, Num. 6, Page 3259-3265, March 2016,
- 238 Sifeu Takougang Kingni, Viet-Thanh Pham, Sajad Jafari, Guy Richard Kol, Paul Wofo, "Three-dimensional chaotic autonomous system with a circular equilibrium: Analysis, circuit implementation and its fractional-order form", CIRCUITS SYSTEMS AND SIGNAL PROCESSING, February 2016 Vol. 35, Num. 6, Page 1933-1948, February 2016,
- 239 Viet-Thanh Pham, Sundarapandian Vaidyanathan, Christos Volos, Sajad Jafari, Nikolay Kuznetsov, Thang Manh Hoang, "A novel memristive time-delay chaotic system without equilibrium points", EUROPEAN PHYSICAL JOURNAL-SPECIAL TOPICS, February 2016 Vol. 225, Num. 0, Page 127-136, February 2016,
- 240 Sajad Jafari, Leslie Samuel Smith, "Can Lionel Messi's brain slow down time passing?", CHRONOBIOLOGY INTERNATIONAL, February 2016 Vol. 33, Num. 4, Page 462-463, February 2016,
- 241 Sajad Jafari, Julien Clinton Sprott, Mohammadreza Hashemigolpayegany, "Layla and Majnun: A Complex Love Story", NONLINEAR DYNAMICS, January 2016 Vol. 83, Num. 0, Page 615-622, January 2016,
- 242 Sajad Jafari, Viet-Thanh Pham, Tomasz Kapitaniak, "Multiscroll Chaotic Sea Obtained from a Simple 3D System Without Equilibrium", INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS, January 2016 Vol. 26, Num. 2, Page 1-7, January 2016,
- 243 Sajad Jafari, Fahimeh Nazarimehr, Julien Clinton Sprott, Mohammadreza Hashemigolpayegany, "Limitation of Perpetual Points for confirming conservation in dynamical systems", INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS, December 2015 Vol. 25, Num. 13, Page 1-6, December 2015,
- 244 Sobhan Goudarzi, Sajad Jafari, Mohammad Hassan Moradi, J. C. Sprott, "NARX prediction of some rare chaotic flows: Recurrent fuzzy functions approach", PHYSICS LETTERS A, November 2015 Vol. 380, Num. 0, Page 696-706, November 2015,
- 245 Sajad Jafari, Julien Clinton Sprott, "Erratum to: "Simple chaotic flows with a line equilibrium"[Chaos, Solitons and Fractals 57 (2013) 79-84]", CHAOS SOLITONS & FRACTALS, August 2015 Vol. 77, Num. 1, Page 341-342, August 2015,
- 246 Abdulhamid Zahedi, Sahbasadat Rajamand, Sajad Jafari, Mohammad Reza Rajati, "A Novel Multiuser Detector Based on Restricted Search Space and Depth-First Tree Search Method in DS/CDMA Communication Systems", WIRELESS PERSONAL COMMUNICATIONS, July 2015 Vol. 82, Num. 3, Page 1531-1545, July 2015,
- 247 Viet-Thanh Pham, Sundarapandian Vaidyanathan, Cristos Volos, Sajad Jafari, "Hidden attractors in a chaotic system with an exponential nonlinear term", EUROPEAN PHYSICAL JOURNAL-SPECIAL TOPICS, July 2015 Vol. 224, Num. 8, Page 1507-1517, July 2015,
- 248 Sajad Jafari, Julien Clinton Sprott, Fahimeh Nazarimehr, "Recent New Examples of Hidden Attractors", EUROPEAN PHYSICAL JOURNAL-SPECIAL TOPICS, July 2015 Vol. 224, Num. 8, Page 1469-1476, July 2015,
- 249 Mohammad Shahzad, Viet-Thanh Pham, Mohammad Ayaz Ahmad, Sajad Jafari, Fatemeh Hadaeghi, "Synchronization and circuit design of a chaotic system with coexisting hidden attractors", EUROPEAN PHYSICAL JOURNAL-SPECIAL TOPICS, July 2015 Vol. 224, Num. 8, Page 1637-1652, July 2015,
- 250 Julien Clinton Sprott, Sajad Jafari, Viet-Thanh Pham, Zahra Sadat Hosseini, "A chaotic system with a single unstable node", PHYSICS LETTERS A, June 2015 Vol. 0, Num. 0, Page 0-0, June 2015,

- 251 Fadhil Rahma Tahir, Sajad Jafari, Viet-Thanh Pham, Cristos Volos, Xiong Wang, "A novel no-equilibrium chaotic system with multi-wing butterfly attractors", INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS, May 2015 Vol. 25, Num. 4, Page 1-11, May 2015,
- 252 Razieh Falahian, Maryam Mehdizadeh Dastjerdi, Maliheh Molaei, Sajad Jafari, Shahriar Gharibzadeh, "Artificial neural network based modeling of brain response to flicker light", NONLINEAR DYNAMICS, April 2015 Vol. 0, Num. 0, Page 0-0, April 2015,
- 253 Yasser Shekofteh, Sajad Jafari, Julien Clinton Sprott, Mohammadreza Hashemigolpayegany, Farshad Almasganj, "A Gaussian Mixture Model Based Cost Function for Parameter Estimation of Chaotic Biological Systems", COMMUNICATIONS IN NONLINEAR SCIENCE AND NUMERICAL SIMULATION, February 2015 Vol. 20, Num. 2, Page 469-481, February 2015,
- 254 Golnaz Baghdadi, Sajad Jafari, Julien Clinton Sprott, Farzad Towhidkhah, Mohammadreza Hashemigolpayegany, "A Chaotic Model of Sustaining Attention Problem in Attention Deficit Disorder", COMMUNICATIONS IN NONLINEAR SCIENCE AND NUMERICAL SIMULATION, January 2015 Vol. 20, Num. 1, Page 174-185, January 2015,
- 255 Viet-Thanh Pham, Cristos Volos, Sajad Jafari, Xiong Wang, Sundarapandian Vaidyanathan, "Hidden hyperchaotic attractor in a novel simple memristive neural network", JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS, December 2014 Vol. 8, Num. 11, Page 0-0, December 2014,
- 256 Viet-Thanh Pham, Sajad Jafari, Cristos Volos, Xiong Wang, Mohammadreza Hashemigolpayegany, "Is that really hidden? The presence of complex fixed-points in chaotic flows with no equilibria", INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS, December 2014 Vol. 24, Num. 11, Page 1-6, December 2014,
- 257 Sajad Jafari, Julien Clinton Sprott, Viet-Thanh Pham, Mohammadreza Hashemigolpayegany, Amir Homayoun Jafari, "A New Cost Function for Parameter Estimation of Chaotic Systems Using Return Maps as Fingerprints", INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS, October 2014 Vol. 24, Num. 10, Page 1-18, October 2014,
- 258 Viet-Thanh Pham, Cristos Volos, Sajad Jafari, Xiong Wang, "Generating a novel hyperchaotic system out of equilibrium", OPTOELECTRONICS AND ADVANCED MATERIALS-RAPID COMMUNICATIONS, June 2014 Vol. 8, Num. 5, Page 535-539, June 2014,
- 259 Viet-Thanh Pham, Cristos Volos, Sajad Jafari, Zhouchao Wei, Xiong Wang, "Constructing a novel no-equilibrium chaotic system", INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS, May 2014 Vol. 24, Num. 5, Page 1-6, May 2014,
- 260 Sifeu Takougang Kingni, Sajad Jafari, Herve Simo, Paul Wofo, "Three-dimensional chaotic autonomous system with only one stable equilibrium: Analysis, circuit design, parameter estimation, control, synchronization and its fractional-order form", The European Physical Journal Plus, May 2014 Vol. 129, Num. 5, Page 1-16, May 2014,
- 261 Maliheh Molaei, Razieh Falahian, Shahriar Gharibzadeh, Sajad Jafari, Julien Clinton Sprott, "Artificial neural networks: powerful tools for modeling chaotic behavior in the nervous system", Frontiers in Computational Neuroscience, April 2014 Vol. 8, Num. 40, Page 1-3, April 2014,
- 262 Seng-Kin Lao, Yasser Shekofteh, Sajad Jafari, Julien Clinton Sprott, "Cost Function Based on Gaussian Mixture Model for Parameter Estimation of a Chaotic Circuit with a Hidden Attractor", INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS, January 2014 Vol. 24, Num. 1, Page 1-11, January 2014,
- 263 Sajad Jafari, Julien Clinton Sprott, "Simple chaotic flows with a line equilibrium", CHAOS SOLITONS & FRACTALS, December 2013 Vol. 57, Num. 1, Page 79-84, December 2013,
- 264 Maliheh Molaei, Sajad Jafari, Mohammad Hassan Moradi, Julien Clinton Sprott, Mohammadreza Hashemigolpayegany, "A Chaotic Viewpoint on Noise Reduction from Respiratory Sounds", BIOMEDICAL SIGNAL PROCESSING AND CONTROL, December 2013 Vol. -, Num. 0, Page 0-0, December 2013,
- 265 Abdolhamid Zahedi, Hamid Reza Bakhshi, Sajad Jafari, Hamid Reza Abdolmohammadi, Mohammad Reza Rajati, "A novel low complexity multiuser detector based on modified genetic algorithm in Direct Sequence-Code Division Multiple Access communication systems", SCIENTIA IRANICA TRANSACTION D-COMPUTER SCIENCE & ENGINEERING AND ELECTRICAL ENGINEERING, December 2013 Vol. 20, Num. 6, Page 2015-2023, December 2013,
- 266 Maliheh Molaei, Sajad Jafari, J. C. Sprott, Mohammadreza Hashemigolpayegany, "Simple chaotic flows with one stable equilibrium", INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS, November 2013 Vol. 23, Num. 11, Page 1-7, November 2013,


- 267 Sajad Jafari, Mohammadreza Hashemigolpayegany, Shahriar Gharibzadeh, "Is there any geometrical information in the nervous system?", *Frontiers in Computational Neuroscience*, August 2013 Vol. 7, Num. 121, Page 1-2, August 2013,
- 268 Sajad Jafari, Golnaz Baghdadi, Mohammadreza Hashemigolpayegany, Farzad Towhidkhal, Shahriar Gharibzadeh, "Is Attention Deficit Hyperactivity Disorder a Kind of Intermittent Chaos?", *JOURNAL OF NEUROPSYCHIATRY AND CLINICAL NEUROSCIENCES*, June 2013 Vol. 25, Num. 2, Page 2-2, June 2013,
- 269 Sajad Jafari, Mohammadreza Hashemigolpayegany, Mansour Rasoulzadeh Darabad, "Comment on "Parameter identification and synchronization of fractional-order chaotic systems" [*Commun Nonlinear Sci Numer Simulat* 2012;17:305–16]", *COMMUNICATIONS IN NONLINEAR SCIENCE AND NUMERICAL SIMULATION*, March 2013 Vol. 18, Num. 3, Page 811-814, March 2013,
- 270 Sajad Jafari, Zohreh Ansari, Mohammadreza Hashemigolpayegany, Shahriar Gharibzadeh, "Is attention a "period window" in the chaotic brain?", *JOURNAL OF NEUROPSYCHIATRY AND CLINICAL NEUROSCIENCES*, March 2013 Vol. 25, Num. 1, Page 5-5, March 2013,
- 271 Sajad Jafari, Mohammadreza Hashemigolpayegany, Amir Homayoun Jafari, Shahriar Gharibzadeh, "A novel viewpoint on the parameter estimation in a chaotic neuron model", *JOURNAL OF NEUROPSYCHIATRY AND CLINICAL NEUROSCIENCES*, March 2013 Vol. 25, Num. 1, Page 19-19, March 2013,
- 272 Sajad Jafari, Julien Clinton Sprott, Mohammadreza Hashemigolpayegany, "Elementary quadratic chaotic flows with no equilibria", *PHYSICS LETTERS A*, March 2013 Vol. 377, Num. 9, Page 699-702, March 2013,

Conference Papers

Portal Records

- 1 Daniel Clemente-Lopez, Lazaros Moysis, Christos Volos, Jes?S Manuel Mu?Oz-Pacheco, Sajad Jafari, Ioannis Stouboulos, "An ARM-FPGA-based Co-Design for Implementing Chaotic Systems ", 10th International Conference on Modern Circuits and Systems Technologies (MOCAST), July 2021
- 2 Alireza Bahramian, Ali Nouri, Farzad Towhidkhal, Sajad Jafari, "Introducing Neural-Network based model and pretraining method to design Central Patten Generator (CPG) ", 26th National and 4th International Iranian Conference on Biomedical Engineering (ICBME), November 2019
- 3 Viet-Thanh Pham, Christos Volos, Sajad Jafari, Adel Ouannas, Toan Thanh Dao, "Chaotic behaviors in a system with a line equilibrium ", 18th European Control Conference (ECC), June 2019
- 4 Fahimeh Nazarimehr, Bahareh Safarjali, Mohammadreza Hashemigolpayegany, Sajad Jafari, "Atrial Fibrillation Modeling Based on Global Insight ", 23rd National & 1st International Iranian Conference on Biomedical Engineering, November 2016

Taught Courses

#	Course title	Description	Headlines	Date
1	Chaos & Its Applications Biomed. Eng	Introduction to chaos and its applications in biomedical engineering		Fall 2021