

7th Chaotic Modeling and Simulation International Conference (CHAOS2014)

7 - 10 June 2014 Lisbon, Portugal

Program

Session / Room	Date / Time	Event	Talk Title / Event
	8.30-10.00	Saturday June 7	Registration
Auditorium	10.00-10.30	Opening Ceremony	
Auditorium	10.30-11.10	Keynote Session (Chair: Alexander Ramm) <u>Walter Gekelman</u> , Tim De Haas, Bart Van Compernelle, Steve Vincena	<i>Entropy, Complexity and Chaos in Magnetic Flux Ropes</i>
Auditorium	11.10-11.50	Keynote Session (Chair: Lev S. Tsimring) <u>Leszek Sirko</u> with Michał Ławniczak, Adam Sawicki, Szymon Bauch, Marek Kuś	<i>The Resonances and Poles in Isoscattering Microwave Networks and Graphs</i>
	11.50-12.20		Coffee Break
SCS1 Room 1	Saturday June 7 12.20-14:00	SPECIAL AND CONTRIBUTED SESSIONS Chair: Valeriy S. Abramov	Nanosystems / Chaotization
		Governance of Alteration of the Deformation Field States of Fractal Volumetric Structures in Multilayer Nanosystem	Olga P. Abramova, Sergey V. Abramov
		Transient Processes in a Model Multilayer Nanosystem with Nonlinear Fractal Oscillator	Valeriy S. Abramov
		The Mechanisms of Chaotisation in Switching Power Converters with Compensation Ramp	Dmitrijs Pikulins
Room 2	12.20-14:00	Chair: Dmitry M. Sonechkin	Sun / Climate Variations
		A role of the Sun in paleoclimate variations	Nina M. Datsenko, Dmitry M. Sonechkin, Bao Yang
		EL NINO AS A "ROGUE WAVE" IN THE GLOBAL CLIMATE DYNAMICS	Dmitry M. Sonechkin
		Multifractal Turbulence at the Heliospheric Boundaries	Wieslaw M. Macek, Anna Wawrzaszek
		A one-dimensional study of the equatorial quasi-biennial oscillation	Kylash Rajendran, Irene Moroz, Peter Read, Scott Osprey

Room 3	12.20-14:00	Chair: Alexander Ramm	Seismicity / Fault Location / Stochastic
		Chaotic fault slip on earthquake ground motion	D. A. Sotiropoulos
		Investigation of the Rate-and-State Equation for Different Critical Stresses by Grassberger-Procaccia Method	S. Turuntaev, A. Kamay
		Wire Fault Location Based on Chaotic Time Domain Reflectometry	Bingjie Wang, Hang Xu, Jianguo Zhang, Jingxia Li, Yuncai Wang
		Work distribution and fluctuation-dissipation relations for system driven by external Levy noises	Ewa Gudowska-Nowak
Room 4	12:20-14:00	Chair: N. Jevtic, Co-Chair: Boon Leong Lan	Gravity / Astronomy
		Gauge Field Turbulence as a Cause of Inflation in Chern-Simons Modified Gravity	David Garrison
		Testing general relativity using a low-speed weak-gravity chaotic bouncing ball	Shiuan-Ni Liang, Boon Leong Lan
		Chaos in hydrodynamic models of pulsating BL Her-type stars	Radoslaw Smolec, Pawel Moskalik
		Free test-particle motion in simplified gravitation near black holes with discs or rings	Vojtěch Witzany, Oldřich Semerák
		Application Corot and Kepler Space Telescope Data – Vehicles for Nonlinear Time Series Analysis Development	N. Jevtic , F. Jiang, M. Ashton, P. Stine
	14.00-15.00		Lunch
SCS2	Saturday June 7	SPECIAL AND CONTRIBUTED SESSIONS	
Room 1	15:00-17:00	Chair: Ihor Lubashevsky, Co-Chair: Rifat Latifi	Human
		Chaos in a High Intensity Trauma Situation	Rifat Latifi, MD, FACS
		Human Intermittent Control: Dynamical Trap Theory and Virtual Experiments	Ihor Lubashevsky, Shigeru Kanemoto, Arkady Zgonnikov, Toru Miyazawa, Takashi Suzuki, Yoshiaki Saito, Hiromasa Ando
		Transient Chaos Provides Hardness Measure for Constraint Satisfaction Problems	Róbert Sumi, Melinda Varga, Zoltán Toroczka, Mária Ercsey-Ravasz
		Multifractal and Energy Parameters Can Underlie an Express Diagnostics of the Human Motor Dysfunction	Olga E. Dick

Room 2	15:00-17:00	Chair: Vic J Law	Plasma
		Spatial and temporal imaging of a plasma jet plume	V J Law, L. J. Cox. W. Adress, W G Graham, D P Dowling
		Permutation entropy analysis of electron temperature fluctuations in a laboratory magnetoplasma	B.Van Compernelle, J. E. Maggs, G. J. Morales
		Dimensionality analysis and investigation of nonlinearity through surrogate data of glow discharge plasma	Debajyoti Saha, Pankaj Kumar Shaw , Sabuj Ghosh, M. S. Janaki, A. N. Sekar
		Applications of Low Temperature Atmospheric Plasma and Codification of its' Influence on the Vital-Animate Organisms	C. L. Xaplanteris, E.D.Filippaki, J.K. Christodoulakis, M.A. Kazantzaki, E.P. Tsakalos, L. C. Xaplanteris
Room 3	15:00-17:00	Chair: Alexander Ramm	Nano-Systems
		Microscopic reaction diffusion patterns in nanometer size confinements	Jorge Carballido-Landeira, Alberto P. Muñuzuri
		Modeling deformation and fracture in Ni nanowire plasticity using a 3D molecular dynamics	M.M. Aish, M. D. Starostenkov
		Nonlinear fractal model of quantum wires	T.Yu. Grevtseva, A.K. Imanbayeva, A.E. Zhanabayeva
Room 4	15:00-17:00	Chair: Yiannis Dimotikalis	Nonlinear Systems
		Fitting Binomial Distribution to Online Rating Datasets: Nonlinear Extensions	Yiannis Dimotikalis
		Stability of State-Period Dependent Non-linear Hybrid Dynamical System	Yutsuki Ogura, Hiroyuki Asahara, Takuji Kousaka
		Study of a Nonlinear Parabolic Problem by Compactness Method	MEFLAH Mabrouk
		Dynamic an Attenuation of Vibrations of the Electromechanical System Damped by Impact Element	Marek Lampart, Jaroslav Zapoměl
	17:30-18:00		Welcome Reception

Sunday June 8

Sunday June 8			
SCS3	Sunday June 8	SPECIAL AND CONTRIBUTED SESSIONS	
Room 1	9.00-10.40	Chair: Carla M.A. Pinto	Chaotic Oscillations
		Interesting features of a network of two coupled rings of chaotic oscillators	Carla M.A. Pinto
		A Secure Communication System Based on a Modified Chaotic Chua Oscillator	Mauricio Zapateiro, Leonardo Acho, Yolanda Vidal
		Experimental Measurements of Frequencies Vibrations Diagnostics in Industrial Turbo generator	S. Grouni, A. Aibeche, A. Hamzaoui, A. Saighi, K. Bouallegue
Room 2	9.00-10.40	Chair: Marcin Molski	Growth Models
		GLOBAL ANALYSIS AND INDETERMINACY OF A TWO SECTOR ENDOGENOUS GROWTH MODEL	Beatrice Venturi, Giovanni Bella, Paolo Mattana
		A Network Approach to Understanding the Emergence and Growth of Languages	Malcolm David Lowe
		Universal Fractal Time of Biological Growth	Marcin Molski
Room 3	9.00-10.40	Chair: B. J. Oommen	Pattern Recognition / Neurons
		Chaotic Pattern Recognition Using the Modified Adachi Neural Network - In A Small-World Way*	Ke Qin, B. J. Oommen
		Pattern generation problems arising in multiplicative integer system	Jung-Chao Ban, Wen-Guei Hu, Song-Sun Lin
		Mode locking, chaos and bifurcation in a Hodgkin-Huxley neuron forced by sinusoidal current	Himanshu Gangal, Gaurav Dar
		Attractor of Neuron Networks in Different Graph Topologies with Different Single Neuron Models	Mozhgan Mombeini
	10.40-11.00		Coffee Break
SCS4	Sunday June 8	SPECIAL AND CONTRIBUTED SESSIONS	
Room 1	11:00-13:00	Chair: Yehuda B. Band	Modeling open quantum and classical systems using stochastic processes
		Two qubits in correlated noise	Marek Trippenbach, Piotr Szankowski, Yehuda B. Band
		How not to operate stochastic pumps	Saar Rahav
		Stochastic Process Approach to Quantum decoherence	Y. B. Band

Room 2	11:00-13:00	Chair: Vladimir I. Ponomarenko	Delay Systems
		Delay Time Estimation from Time Series Using the Nearest Neighbour Method	Mikhail D. Prokhorov, Vladimir I. Ponomarenko, Vladimir S. Khorev
		Reconstruction of Ensembles of Coupled Time-Delay Systems from Time Series	Vladimir I. Ponomarenko, Mikhail D. Prokhorov, Ilya V. Sysoev
		STABILITY AND BOUNDEDNESS OF TOTALLY NONLINEAR NEUTRAL DIFFERENTIAL EQUATIONS WITH FUNCTIONAL DELAY VIA FIXED POINT THEORY	I. Derrardjia, A.Djoudi, A. Ardjouni
		Chaos in Pendulum Systems with Limited Excitation in the Presence of Delay	A.Yu. Shvets, O.M. Makasyeyev
Room 3	11:00-13:00	Chair: A.A. Balyakin	Population / Economy / Ecology
		2-Phase model for population growth	A.A. Balyakin, V.G. Zhulego
		Chaos in Digital Currency Markets	H.Ahmet Yildirim, Avadis S. Hacinliyan, Ergun Eray Akkaya
		Evaluation of the effects of micropollutants on groundwater quality Case of plain del Madher	Nabil Sahrawi
		Modeling and Numerical Simulation of atmospheric dispersion of pollutant Application software: ALOHA, PHAST	B. TOUAHAR, A.TAMRABET, N. SAHRAOUI
	13:00-14:00		Lunch
Excursion	14:00-18:00		Half Day Excursion
Monday June 9			
SCS5	Monday June 9	SPECIAL AND CONTRIBUTED SESSIONS	
Room 1	9:00-10:30	Chair: Shunji Kawamoto	Chaos / Time Series / Methods
		A new embedding method based on a Kolmogorov-Smirnov approach	Matteo Franchi, Leonardo Ricci
		Geometry of the limit set of a piecewise linear function	Roy Adler, Tomasz Nowicki, Grzegorz Swirszcz, Charles Tresser, Shmuel Winograd
		A Nonlinear Time Series Expansion of the Logistic Chaos	Shunji Kawamoto
		Annihilation of saddle loop and complex Andronov-Hopf bifurcation	Branislav Stanković, Stevan Maćešić, Željko Čupić, Nataša Pejić, Ljiljana Kolar-Anić

Room 2	9:00-10:30	Chair: Evgeny Kreerenko	Control / Circuits / Systems / Dynamics
		Chaos radar using a Colppits circuit	Jianguo Zhang, Hang Xu, Jingxia Li, Bingjie Wang, Yuncai Wang
		Delayed feedback control of breathing localized structures in reaction-diffusion systems	Svetlana Gurevich
		Synthesis of Control Laws Sea Launch Aerospace System on the Basis of Super-heavy Amphibian Aircraft	Evgeny Kreerenko
		Learning dynamical regimes of Solar Active Region via homology estimation	Irina Knyazeva, Nikolay Makarenko
Room 3	9:00-10:30	Chair: V. Law	Flows / Lasers
		Fluid mixing in vortex structure "leapfrog"	Korniy Kostkin
		Partial synchronization and multi-stabilities in all-to-all coupled laser networks	Fabian Böhm, Kathy Lüdge
		Chemically driven Rayleigh-Bénard convection	Lenka Šebestíková
		Nonequilibrium processes in the vicinity of the hydrodynamic states	V.N. Gorev, A.I. Sokolovsky, Z.Yu. Chelbaevsky
Room 4	9:00-10:30	Chair: Y. Dimotikalis	Methods and Simulations
		Simulation and Modelling of MA(1) Longitudinal Negative Binomial Counts	Mamode Khan N
		Integrated Emergency Management and Risks for Mass Casualty Emergencies	A.N. VALYAEV, G.M. ALEKSANYAN, A.A. VALYAEV
		Parameter Matching Using Adaptive Synchronization of Chua's Circuit: SPICE and MATLAB Simulations	Valentin Siderskiy, Vikram Kapila
Auditorium	10.30-11.10	Keynote Session (Chair: Walter Gekelman) Lev S. Tsimring	Generation and Synchronization of Oscillations in Synthetic Gene Networks
Auditorium	11.10-11.50	Keynote Session (Chair: Leszek Sirko) Alexander G. Ramm	Wave scattering by many small particles and creating materials with desired refraction coefficients
	11.50-12.10		Coffee Break

SCS6	Monday June 9	SPECIAL AND CONTRIBUTED SESSIONS	
Room 1	12:10-14:00	Chair: Gabriel V. Orman	Stochastics and Non Linear
		Bottom particles segregation: experiments and numerical simulations using non-linear diffusion equations	T.D.Chu, F.Marin, A.Jarno-Druaux, D.Tiguercha, A.-C. Bennis, A.B.Ezersky
		A vision of the Brownian motion models useful in random systems analysis	Gabriel V. Orman, Irinel Radomir
		Burgers equation and spectral shock waves in dynamical random matrix theories	Maciej A. Nowak
		Magnetohydrodynamics (MHD) propulsion system via mathematical analysis and numerical simulation	Ali I. Mussa
Room 2	12:10-14:00	Chair: Y. Dimotikalis	Economy / Finance
		DYNAMICAL ANALYSIS OF A DISCRETE TIME TOURISM MODEL	G. Casula, B. Venturi
		New Evidence for Long Range Dependence in World Stock Markets	Maria Skaperda
		Component Analysis in Financial Time Series	José Miguel Salgado, José Abilio Matos
		Characterization and Prediction of the Electricity Demand in the Iberian Peninsula by using Nonlinear Time Series Analysis	Guedes, A.M., Mendes, D., Saraiva, J.P.
Room 3	12:10-14:00	Chair: Shunji Kawamoto	Chaotic Maps
		Grayscale Image Encryption Based on Multimodal Maps	M. García- Martínez, E. Campos-Cantón
		Three-Dimensional Chaos Maps and Fractal Sets with Physical Analogue	Nguyen Thanh Nhien, Dang Van Liet, Shunji Kawamoto
		Key Agreement Protocol Based on Extended Chaotic Maps with Anonymous Authentication	Ping Zhen, Geng Zhao, Lequan Min, Xiaodong Li
Room 4	12:10-14:00	Chair: Kestutis Pyragas, Co-Chair: Tatiana F. Filippova	Control I
		Time-Delayed Feedback Control Design Beyond the Odd-Number Limitation	Kestutis Pyragas, Viktor Novočenko
		Algorithms of Estimating Reachable Sets of Nonlinear Control Systems with Uncertainty	Tatiana F. Filippova, Oxana G. Matviychuk
		Continuous Pole Placement for Time Delayed Feedback Controlled Systems	V. Pyragas, K. Pyragas
		Controlling multi-scroll chaotic systems via high-order approach and predictive control	S. Hadeif, A. Boukabou
	14:00-15:00		Lunch

SCS7	Monday June 9	SPECIAL AND CONTRIBUTED SESSIONS	
Room 1	15:00-17:00	Chair: Vladimir L. Kalashnikov	
			Solitons
		Impact evaluation of third-order dispersion in strongly DM soliton interactions	Francisco J. Diaz-Otero, Pedro Chamorro-Posada, Francisco J. Fraile-Peláez
		Spherical Soliton in Earth Mesosphere Plasma	K. Annou
		Chaotic Dissipative Raman Solitons	Vladimir L. Kalashnikov
Room 2	15:00-17:00	Chair: C. H. Skiadas, Co-Chair: W. M. Macek	
			Chaotic Models Methods and Systems
		The Hénon-Heiles system revisited	Christos H Skiadas and Charilaos Skiadas
		Wavelike Flow-Densities and Eigenvalues from Discrete Rotation-Translation-Reflection Modeling Driven by Limit-Cycle Holonomic Constraints	Bernd Binder
		Chaos, Strange Attractors, and Intermittency in the Generalized Lorenz Model	Wieslaw M. Macek, Marek Strumik
		Steganography Based On Chaotic Torus Automorphisms	George Makris, Ioannis Antoniou
Room 3	15:00-17:00	Chair: Chaoqun Liu	
			Flows
		The Effect of Airflow on Sediment around a 3D Rectangular Prism Geometry	G. Jason Bassett, Ahmed Aljaberi
		DNS Study on Mechanism of Flow Chaos in Late Boundary Layer Transition	Yong Yang, Jie Tang, Yonghua Yan, Chaoqun Liu
		Non-Linear Dynamic Analysis of Cylindrical Shells Subjected to a Supersonic Flow	A. A. Lakis, R. Ramzi, M. Toorani
		Non-uniform hyperbolicity for near-grazing piecewise smooth systems	Sergey G. Kryzhevich
	17:00-17:30		Coffee Break
PS	17:30-18:00	POSTER SESSION (see at the end of the program)	
			POSTER
	20:30-24:00		Farewell Dinner
Tuesday June 10			
SCS8	Tuesday June 10	SPECIAL AND CONTRIBUTED SESSIONS	
Room 1	9:20-11:00	Chair: Kestutis Pyragas, Co-Chair: Zoran Rajilic	
			Chaos Synchronization / Detection / Filtering
		The anticipating synchronization of chaotic systems based on an act-and-wait concept	Tatjana Pyragienė, Kestutis Pyragas
		Detecting Chaos Using the Strength of Extreme L Rule	Zoran Rajilic
		Minimax filtering algorithm for one-dimensional chaotic signal	Anton S. Sheludko, Vladimir I. Shiryayev

Room 2	9:20-11:00	Chair: V J Law	Oscillations
		Acoustic decoding of a sheep bells and trotters within a herd of sheep	V J Law
		Dynamics of Two Coupled Nonlinear Conservative Oscillators	S.S. Syaber, I.O. Anisimov
		Chaos in the oscillator with pure quadratic nonlinearity	L. Cveticanin, M. Zukovic
		Partial synchronization groups in a time-delayed Kuramoto model through networks	Celso B. N. Freitas, Elbert E. N. Macau
Room 3	9:20-11:00	Chair: Paniveni Udayashankar, Co-Chair: A. Meleti	Turbulence / Transport / Autoresonance Models
		Edge of Chaos and Genesis of Wave Turbulence	Pablo R. Muñoz
		Transport properties in the standard map with long time	L. BOUCHARA, O. OURRAD MEZIANI, X. LEONCINI
		Random Perturbations of Autoresonance Models	Oskar A. Sultanov
		Chaotic and turbulent supergranulation	Paniveni Udayashankar
	11:00-11.30		Coffee Break
SCS9	Tuesday June 10	SPECIAL AND CONTRIBUTED SESSIONS	
Room 1	11:30-13:30	Chair: Vic Law	Chaotic Systems and Applications
		Design of Pseudorandom Number Generator based on Novel High Dimensional Chaotic System	Dandan Han, Lequan Min, Geng Zhao
		IBNR Problem with Stochastic Incremental approach	Chorfi Ilyes
		Parameters Estimation for Chaotic Systems Using the Unscented Kalman Filter to Produce Forecast	Elena I. Malyutina, Vladimir I. Shiryayev
Room 2	11:30-13:30	Chair: Alexander Ramm	Special Non-Linear and Chaotic Cases
		Mechanisms to gain energy from the introduction of dissipation	Ricardo Egydio de Carvalho
		Performance Analysis of Chaotic TH-CDMA for UWB Impulse Radio Communications	Anis Naanaa
		Energy and Frequency Location as Criteria for Chaotic Encryption on Unidimensional Signals	Soriano-Sánchez A., Platas-Garza M.A., Diaz-Romero D.A., Posadas-Castillo C
Room 3	11:30-13:30	Chair: A. Meleti	Chaotic and Nonlinear Cases I
		Shadowing Lemma and Chaotic Orbit Determination	Federica Spoto, Andrea Milani
		Numerical calculation of the infinite cluster and the backbone fractal dimension for a square network of percolation	B.Hadri, A.Fatah, A.Benallou

		Search for Sound Gesturing in Computer Music and Live Electronics: a chaotic dynamical systems approach	Edmar O. Soria
Room 4	11:30-13:30	Chair: Y. Dimotikalis	Chaotic and Nonlinear Cases II
		Using Chaos to Effectively Transfer a Spacecraft to the Moon	Francisco J. T. Salazer, Elbert E. N. Macau, Othon C. Winter
		Multifractality in the astrophysical time series	Daniel Brito de Freitas
		$L\beta_2^{(a)}$ and $L\beta_2^0$ X-Ray satellites spectra in the $L\beta_2$ region	Surendra Poonia
		The Origination of Hyper-Chaos in Some Non-Ideal Hydrodynamic Systems	A. Yu. Shvets, V. A. Sirenko
		Investigation of dynamics of myocardial contractile function in patients with hypertension	Manana Janiashvili
		Polynomial chaotic metamodelling for geotechnical reliability-based design	Sónia H. Marques, A. Topa Gomes, A. Abel Henriques
	13:30-14:30		Lunch
SCS10	Tuesday June 10	SPECIAL AND CONTRIBUTED SESSIONS	
Room 1	14:30-16:00	Chair: Dumitru DELEANU	Control / Synchronization
		On the selective synchronization of some nonlinear dynamical systems that exhibit chaos	Dumitru DELEANU
		Synergetic synthesis of control laws complex system startup heavy reusable aerospace aircraft into orbit	Olga D. Kreerenko, Evgeny S. Kreerenko
		Adjustment accuracy in control systems for reliability	MEGLOULI HOCINE
Room 2	14:30-16:00	Chair: Y. Dimotikalis	Biology
		Bifurcations and chaos in discrete-time gonorrhoea model	Amalia Gkana, Loukas Zachilas
		Application of Nonlinear dynamic in analysis of microcirculatory regulation	Lubomir L. Traikov, Ivan G. Antonov, Silvia M. Abarova, Elena B. Dzambazova, Akira Ushiyama, Hideyiki Okano, Chiodji Ohkubo
		Variation of Resistance of DNA versus the Temperature	S.Behnia, S.Fathizadeh

Room 3	14:30-16:00	Chair: Shijun Liao	Chaotic and Nonlinear Cases III
		Simulation of Grain Structures on Steel Billets Solidified During Continuous Casting	A. Ramírez-López, D. Muñoz-Negrón, H. Moreno-Avalos, L. Moncayo-Martínez
		Compare some parametric and non-parametric estimation methods for hazard function of Mixed Gumble min distribution with simulation	WALEED ABDULLAH ARAHEEMAH AL-ELAYAWI, DHAHIR APPAS RIDHA, Nazar Mostafa J. Alsarraf
		Compare Some Parametric and Non-parametric Estimation Methods for GARCH Models with Simulation	Nazar Mostafa J. Alsarraf, WALEED ABDULLAH ARAHEEMAH AL-ELAYAWI, Akram J. Muhammad Ali
		On the clean numerical simulations (CNS) of chaotic solution of Lorenz equation	Shijun Liao
		On the Clean Numerical Simulation for Chaotic Three-Body Problems	Shijun Liao
Room 4	14:30-16:00	Chair: Vyacheslav M. Somsikov	Chaotic and Nonlinear Cases IV
		Free Fall Solutions of Three Body Problem	Vladimir Titov
		The extensions of classical mechanics by eliminating constraints due to the holonomicity hypothesis	Vyacheslav M. Somsikov
		Chaos at Cross-waves in Fluid Free Surface	Tatyana S. Krasnopolskaya, Viacheslav M. Spektor, Evgeniy D. Pechuk
		SELF-ORGANIZATION AND CHAOS IN A METABOLIC PROCESS OF THE KREBS CYCLE	V.I. Grytsay, I.V. Musatenko
	16:00-16:30		Closing Ceremony
Excursion	11.06.2014	Wednesday June 11	Full Day Excursion
PS	9.06.14 17.30-18:00	POSTER SESSION (9 June 2014)	
		Light-Assisted Physical Ageing in As-Se Glasses: Deterministic Chaos and Atomistic Origin	Oleh I. Shpotyuk, Avadis S. Hacınliyan, Roman Golovchak, Yani Skarlatos, Valentina Balitska, Ilnkur Kusbeyzi Aybar, Andrzej Kozdras, Orhan Ozgur Aybar
		Step-wise Fractal Kinetics in Physical Ageing: Compositional Complexity in Network Glass-Formers	Oleh I. Shpotyuk, Valentina O. Balitska, Roman Ya. Golovchak, Andrzej Kozdras
		Dynamics and stability of magnetized sphere levitated in a magnetic field	R. Wawrzaszek, M. Strumik, L. Rossini, E. Onillon, M. Banaszkievicz, K. Seweryn, M. Sidz
		Investigation of influence of common external noise on an ensemble of globally coupled electronic oscillators	Yerkebulan D. Nalibayev, Amirkhan A. Temirbayev

		Regular or Chaotic Behavior in Truncations of Toda Lattice Systems	O. Ozgur Aybar, I. Birol, Avadis S. Hacinliyan, I. Kusbeyzi Aybar
		Bifurcations of the Hénon Map and Its Derived Vector Field	O. Ozgur Aybar, I. Kusbeyzi Aybar, Avadis S. Hacinliyan
		Multifractal-based Image Analysis with Application in the Edge Detection	Anna Wawrzaszek, Marcin Rybicki
		The Ni-Al-Zr diffusion simulations	Jolanta Romanowska, Bartłomiej Wierzba, Sławomir Kotowski
		Measuring Chaos in the Cardiac System	M. Kesmia, S. Boughaba
		Valorization of petroleum loads by thermal process	N.BEN TAHAR, H.MINOUN
		Compare of Backstepping Control and Feedback Control in a Chaotic Biological System	Seyedeh Sanaz Rostami, Moosareza Shamsieh Zahedi, Aghileh Heidari
		Synchronization of Harb-Zohdy Chaotic Systems via Backstepping Design	Seyedeh Sanaz Rostami, Moosareza Shamsieh Zahedi, Aghileh Heidari
		REPEATED RULE AQUISITION USING ONTOLOGY IN E SHOPPING WEBSITES	C. Indumathi
		Project Planning Model Based on Nonlinear Dynamic System	MAHMOOD GOLABCHI, AMIR FARAJI
		Prediction of Project Cost Deviations Using Lyapunov Exponent	MAHMOOD GOLABCHI, AMIR FARAJI
		Chaos and Neutrino in Statistical Physics	Muhammad Yusuf
		Effect of Hydrophobic Antioxidants on the Resorcinol based BZ system under Partial non aqueous conditions	Nadeem Bashir, G M Peerzada
		CHAOTIC SPECTROSCOPY PRINCIPLE FOR NEW PRINCIPLES CHEMICAL PHYSICS	Nikolay V. Serov
		Models Behavior of Economic Systems on the Edge of Chaos	Pavel Zakharchenko, Dmitriy Savushkin
		Chaotic trajectories in a static mode of the magnetron diode under azimuthal magnetic field	V. Bayburin, N. Khorovodova
		Chaos in three level system due to the relative phases of the driving fields	Gennady A. Koganov, Reuben Shuker
		Robustness of Chimera States in Non-locally Coupled Logistic Maps	Pranneetha Bellamkonda, Nita Parekh
		Computer Modeling of Information Properties of Deterministic Chaos	Mykola Kushnir, Sergii Galiuk, Volodymyr Rusyn, Grygorii Kosovan
		Hurst Exponent: On Glucose Incubated Erythrocytes Subjected To Mechanical Stress	Ana M. Korol
		Using Shell Models to Study Drift Wave Turbulence in Fusion Plasmas	Katy Ghantous, Ozgur Gurcan

		Blind Channel Equalization of Single Input Single Output Chaotic Communication System Using Stochastic Gradient Algorithms	Bassam A. Harb, Al-Obiedollah M. Haitham
		Dynamics from Multivariable Longitudinal Data	Vivien Visaya, David Sherwell
		CFD Of A Turbulence Model In The Square Duct	Honoré Gnanga, Zaynab Salloum, Roger Ondo Ndong, Zita .H. Moussambi Membetsi
		Turbulent Propagation of Premixed Flames – Ordered and Chaotic Behaviors	Moshe Matalon, Francesco Creta
		Formulation of Transmission Probabilities for Arbitrary Potential in 2-dimensional Quantum Chaotic Systems	Avik Kumar Mahata, B.Ravishankar
		A PCA-based Technique for Fault Diagnosis in a Cement Rotary Kiln System	B. Ikhlef, A.Kouadri, A. Bensmail, M.Zelmat
		Signal Processing for Ultrasonic Phased Array of Multi-layered Composites Based on Deconvolution Technique	BENAMMAR Abdessalem, DRAI Redouane, KHECHIDA Ahmed
		Chimera states in directed ring	Dong-Uk Hwang
		The Nambu-Goldstone Bosons of Gauge Symmetry	Mursalin, Muhammad Yusuf, La Sabarudin, Ria Fachria Tametuo, Rabiudin, Arimal, I K Suarjana, Bambang Labanan, Tasrief Surungan
		Circular generator of PRN's	Pavel Varbanets, Sergey Varbanets
		A stochastic perturbation theory for non-autonomous systems	W. Moon, J. S. Wettlaufer
		How complex and predictable is the dynamics of a tumor growth model	Jorge Duarte, Cristina Januário, Nuno Martins, Carla Rodrigues, Josep Sardanyés