

Call for papers

EDIESCA

MEETING FOR THE DISSEMINATION AND RESEARCH IN THE
STUDY OF COMPLEX SYSTEMS AND THEIR APPLICATIONS

3th
MEETING
28-30
SEP.
2022
Ensenada B.C.



Activities Program

Simultaneous talks in room A = **SA**, and Simultaneous talks in room B = **SB**

Wednesday	Conference Room/Topic	Hour	Activity
		9:00-9:45	Registration
September	SA		Location E-40
	A	9:45-10:00	Welcome ceremony
	P Plenary talks	10:00-11:00	P1 Stefano Boccaletti CNR's Institute for Complex Systems in Florence, Italy. Structure, processes and dynamics of networks with higher order interactions
	SA1 Fractional calculus and multiscroll attractors	11:00-11:20	SA11 Eric Campos Cantón, Guillermo Huerta Cuéllar, and Héctor Eduardo Giraldi Velázquez Instituto Potosino de Investigación Científica y Tecnológica Generation of multiscroll attractors via planar systems
		11:20-11:40	SA12 Deyanira Potrero Techalotzi, Esteban Tielo Cuautle, Oscar Martínez Fuentes (virtual) Instituto Tecnológico de Puebla Methods for solving fractional-order chaotic systems
		11:40-12:00	SA13 Daniel Clemente Lopez, José de Jesús Rangel Magdaleno, and Jesús Manuel Muñoz Pacheco, (Virtual) Instituto Nacional de Astrofísica, Óptica y Electrónica A high speed PRNG based on a fractional-order chaotic system and its application for image encryption
		12:00-12:20	Coffee
	SA2 Control of Complex Systems	12:20-12:40	SA24 Sahar Jenhani, Hassène Gritli, and Giuseppe Carbone (Virtual) Higher Institute of Information and Communication Technologies, Tunisia Position Control Problem of Lagrangian Robotic Systems via Linear Controllers: Design Methods and Comparison
		12:40-13:00	SA25 Sahar Jenhani, Hassène Gritli, and Giuseppe Carbone (Virtual) Higher Institute of Information and Communication Technologies, University of Carthage, Tunisia Comparison Between Some Nonlinear Controllers for the Position Control of Lagrangian-type Robotic Systems
		13:00-13:20	SA26 Essia Added, Hassène Gritli and Safya Belghith (Virtual) Laboratory of Robotics, Informatics and Complex Systems, National Engineering School of Tunis, University of Tunis El Manar Occurrence of novel complex behaviors in the uncontrolled passive compass biped model
		13:20-13:40	SA27 Sahar Jenhani, Hassène Gritli, and Giuseppe Carbone (Virtual) Laboratory of Robotics, Informatics and Complex Systems, National Engineering School of Tunis, Tunisia Design of nonlinear PD-based controllers for the motion trajectory control of robot manipulators: Comparison and discussion
		13:40-15:00	Meal
	SA3 Synchronization of complex systems and complex networks	15:00-15:20	SA38 Isaac Leonel López García and Juan Gonzalo Barajas Ramírez (Virtual) Instituto Potosino de Investigación Científica y Tecnológica (IPICYT) On Pinning Synchronization of Switching Dynamical Networks
		15:20-15:40	SA39 Eber J. Ávila Martínez, José Luis Echenausia Monroy, and Adriana Ruiz Silva Innovaciones Tecnológicas Mercado, CICESE, UNISON Synchronization in Multi-scroll systems on strongly connected networks
		15:40-16:00	SA310 Astrid Maritza Gonzalez Zapata, Esteban Tielo Cuautle, and Israel Cruz Vega Instituto Nacional de Astrofísica, Óptica y Electrónica (INAOE) FPGA Implementation of Echo State Networks with Improved Topologies for Chaotic Time Series Prediction
		16:00-16:20	SA311 Juan Luis Vázquez Gutiérrez, and Didier López Mancilla Centro Universitario de los Lagos Universidad de Guadalajara Stability in the synchronization of 2D multiscroll chaotic systems using Hamiltonian forms

	9:00-9:30 Registration		
Thursday September 29	SA		Location E-40
	P Plenary Talks	9:00-10:00	P2 Sajad Jafari (Virtual) Amirkabir University of Technology, Iran Megastability: definition and its relation with multistability, extreme multistability, and hidden attractors
		10:00-11:00	P3 Yaneer Bar-Yam (Virtual) New England Complex Systems Institute Ciencia de la complejidad y pandemia
	11:00-11:20		Coffee
	Poster session	11:20-12:00	Poster session
Thursday September 29	SA5 Chaotic maps and applications	12:00-12:20	SA525 Lazaros Laskaridis, Christos Volos, Jesus Munoz-Pacheco, Ioannis Stouboulos (Virtual) Aristotle University of Thessaloniki Study of the Dynamical Behavior of an Ikeda-based Map with a Discrete Memristor
		12:20-12:40	SA526 Eleftherios Petavratzis, Christos Volos and Ioannis Stouboulos (Virtual) Aristotle University of Thessaloniki Experimental Study of Terrain Coverage of an Autonomous Chaotic Mobile Robot
		12:40-13:00	SA527 Deeksha Sethi, Nithin Nagaraj, and Harikrishnan N. B. (Virtual) National Institute of Advanced Studies, Indian Institute of Science Campus, Bengaluru, INDIA The Unreasonable Effectiveness of the Chaotic Tent Map in Engineering Applications
		13:00-13:20	SA528 Nikolaos Charalampidis, Christos Volos, Lazaros Moysis, and Ioannis Stouboulos (Virtual) Aristotle University of Thessaloniki A Chaotification Model Based on Modulo Operator and Secant Functions for Enhancing Chaos
	13:20-14:20		Meal
	SA6 Piecewise systems for pseudorandom number generation	14:20-14:40	SA629 Claudio Alejandro García Grimaldo, Eric Campos Cantón (Virtual) Instituto Potosino de Investigación Científica y Tecnológica, A.C. Pseudorandom number generator via one-dimensional piecewise map
		14:40-15:00	SA630 Luis Gerardo de la Fraga and Brisbane Ovilla Martínez Cinvestav, Computer Science Department Differential Evolution with a chaotic PRNG
		15:00-15:20	SA631 Rodolfo de Jesús Escalante González, Héctor Eduardo Gilardi Velázquez, and Eric Campos (Virtual) Instituto tecnológico de San Luis Potosí A class of three-dimensional systems with hidden and self-excited scroll attractors and its application in pseudo random number generation.
		15:20-15:40	SA632 María Fernanda Moreno López (Virtual) Instituto Nacional de Astrofísica, Óptica y Electrónica Generación de secuencias binarias utilizando atractores ocultos/ Generation of binary sequences using hidden attractors
	15:40-16:00		Coffee
	SA7 Complex data analysis	16:20-16:40	SA733 José Jaime Esqueda-Elizondo, Laura Jiménez Beristain, Alejandra Serrano Trujillo, Enrique Efrén García-Guerrero, Oscar Roberto López-Bonilla, Gilberto Manuel Galindo-Aldana, J. Reyes Juárez-Ramírez, Margarita Zavala Arce, Andrea López-Rivas, Annette Sofia Martínez Verdin, María Marlene Muñoz López, Itzel Arely Romano Pérez, and Everardo Inzunza-González (Virtual) Universidad Autónoma de Baja California Attention Measurement of Engineering Students Doing Academic Activities Using Machine Learning Algorithms on EEG Signals
		16:40-17:00	SA734 José Ricardo Cárdenas Valdez, Manuel de Jesús García-Ortega, Angel Humberto Corrar-Domínguez, Everardo Inzunza González, Andrés Calvillo-Téllez ITT/TECNM, IPN (CITEDI), y UABC Design of n-QAM transmission system of ECG signals in RF transceiver
	SB		Location E-33
	SB4 Neurodynamics and applications	12:00-12:20	SB435 Deeksha Sethi, Nithin Nagaraj, Harikrishnan N B (Virtual) National Institute of Advanced Studies, IISc Campus, Bangalore, India Neurochaos Feature Transformation for Machine Learning
		12:20-12:40	SB436 Remya Ajai A S, Harikrishnan N B, and Nithin Nagaraj (Virtual) Department of Electronics and Communication Engineering, Amrita Vishwa Vidyapeetham, Amritapuri, India. Analysis of Logistic Map Based Neurons in Neurochaos Learning Architectures for Data Classification

	SB4 Neurodynamics and applications	12:40-13:00	SB437 C.A. Vásquez-Rochín, M.E. Martínez-Rosas, R.M. López-Gutiérrez, H.C. de Ávila, G. Romo-Cárdenas, P.A. Luque, and M.M. Miranda-Velasco Universidad Autónoma de Baja California; Facultad de Ingeniería, Arquitectura y Diseño Multi-stage ensemble-based system for Glaucomatous Optic Neuropathy diagnosis on fundus images
		13:00-13:20	SB438 Marco Antonio Gomez-Guzman, Laura Jimenez Beristain, Enrique Efrén García-Guerrero, Ulises Jesús Tamayo-Pérez, Oscar Roberto López-Bonilla, José Jaime Esqueda-Elizondo, Kenia Palomino Vizcaino, and Everardo Inzunza Gonzalez Universidad Autónoma de Baja California (UABC) A Complex System for Brain Tumor Classification Using Convolutional Neural Networks on MRI Images
		13:20-14:20	Meal
September 29	SB5 Complexity in social dynamics	14:20-14:40	SB539 Evgenii Kurmyshev, and Norma Lety Abrica Jacinto Centro Universitario de los Lagos. Universidad de Guadalajara The effect of agents' psychology and social environment on the opinion formation: C/PA relative agreement model in SW and SF societies
		14:40-15:00	SB540 Hector Vargas Rodriguez, María Guadalupe Medina Guevara, and Evgenii Kurmyshev (Virtual) Universidad de Guadalajara Dynamics of indoctrination in small groups around three options
		15:00-15:20	SB541 Juana Pérez Gómez (Virtual) Centro Universitario de los Lagos. Universidad de Guadalajara La complejidad del concepto de violencia de género, su representación y lenguaje
		15:20-15:40	SB542 Eduardo Jimene López, and Luis Antonio López Rivera (Virtual) El Colegio Mexiquense, A.C. Artificial Intelligence in Vertical Urban Growth
September 29	15:40-16:00		Coffee
	SB6 Complexity in artificial vision	16:20-16:40	SB643 Guillermo M. Limón-Molina, Jonathan G. Barraza-Arredondo, Ricardo Ramírez-Ledezma, and Jehú Steward-García Universidad Politécnica de Baja California An Application of Product Classification Using Artificial Vision
		16:40-17:00	SB644 Guillermo M. Limón-Molina, Aurelio D.J. Castañeda-Vazquez, Alan F. Perez-Cuevas, Jorge O. Ortega-Cojapco, and Christian I. Cortés-Navarro Universidad Politécnica de Baja California A Security System Application Using Machine Vision
Friday September 30	SA		Location E-40
	P Plenary Talk	9:00-10:00	P4 Norbert Herencsar (Virtual) Brno University of Technology, Czech Republic Recent Advances in Fractional-Order Circuits, Systems, and Signal Processing
		10:00-11:00	P5 Eva M. Navarro López (Virtual) University of Wolverhampton, United Kingdom The three ages of complex systems: past, present and future".
	SA8 Phenomenological implementations of complex systems	11:00-11:20	SA845 Carlos Alejandro Velázquez-Morales, Carlos Sánchez-López, Carlos Manuel Hernández-Mejía, Luis Abraham Sánchez-Gaspariano Autonomous University of Tlaxcala Artificial Synapse Topologies Using Arbitrary-Order Memristors
		11:20-11:40	SA846 Héctor Eduardo Gilardi Velázquez, Rodolfo Escalante Gonzalez, Bahía Cassal Quiroga, Adriana Ruiz Silva, and Eric Campos Cantón Universidad Panamericana Dynamic of deterministic Brownian motion in a field of force.
		11:40-12:00	SA847 José Luis Echenausía Monroy, José Ricardo Cuesta García, Jonatán Peña Ramírez Centro de Investigación Científica y de Educación Superior de Ensenada (CICESE) The Wonder World of Complex Systems
	12:00-12:20		Coffee
	SB		
	SB7 Electrical and electronics converters	11:00-11:20	SB748 Sandra Huerta Moro, and Víctor Rodolfo González Díaz Instituto Nacional de Astrofísica, Óptica y Electrónica Design of a PID and a Sliding Mode Controls for a Buck DC – DC converter
		11:20-11:40	SB749 Allan G. S. Sánchez, Esteban Tielo-Cuautle and C. Posadas-Castillo Instituto Tecnológico de Celaya Fractional-Order Controllers in Power Electronic Converters

Friday September 30	SA	12:20-13:20	Round Table
	Closing	13:20-13:40	Closing
	Ruta del vino Hora del tour por confirmar Schedule to be confirmed 		
	Poster session	Location E-40	
Thursday September 29 11:20-12:00	Lobby	Daniel Murillo Escobar, Miguel Angel Murillo Escobar, Cesar Cruz Hernández, and Rosa Martha López Gutierrez Universidad Autónoma de Baja California Chaotic encryption of ECG signal in embedded system for secure telemedicine	
		Yolitzl Ruano, Genesis Huerta, Carelia Glaxiola-Pacheco, Dora-Luz Flores, Eunice Vargas, and Dayanira Paniagua UABC	
		Javier Iván Wong-Romero, Priscy Luque-Morales, Juan de Dios Sánchez-López, and Gerardo S. Romo-Cardenas Facultad de Ingeniería Arquitectura y Diseño, Universidad Autónoma de Baja California LIGHT PROPAGATION STUDY BY MONTE CARLO SIMULATION IN THE APPLICATION OF ANTIMICROBIAL PHOTODYNAMIC THERAPY ON BONE SCAFFOLDS BASED ON HYDROXYAPATITE	
		Paulina Mar DÍa, Enrique Efrén García Guerrero, Everardo Inzunza González, Óscar Roberto López Bonilla, Ulises Jesús Tamayo Pérez* UABC Universidad Autónoma del estado de Baja California Detection of proteins using a colorimetric sensor	
		Irwin Díaz Allen and Eric Campos IPICYT Analog and digital comparison of the tent map	
		Rider Jaimes Reátegui, José de Jesús Barba Franco, Juan Hugo García López, Guillermo Huerta Cuéllar Guadalajara University Electronic Equivalence of Erbium-Doped Fiber Laser with Pump Modulation	
	Lobby	Guillermo Huerta Cuéllar, José Luis Echenausía Monroy, Eric Campos, Rider Jaimes Reategui University of Guadalajara Deterministic Brownian-like motion: electronic approach	
		José Octavio Esqueda de la Torre, Juan Hugo García López, Rider Jaimes Reátegui, Guillermo Huerta Cuéllar Universidad de Guadalajara, CU Lagos Optical power increase in coupled multistable erbium fiber lasers	
		René Michel Martínez Trujillo, Carlos A. Brizuela, and L.A. Márquez-Martínez CICESE Comparación de dos técnicas evolutivas multiobjetivo para la sintonización del controlador PID en sistemas con retardo	
		Dann De la Torre, V. Garcés-Chávez, Juan D. Dios Sanchez-Lopez, Kevin A. O'Donnell, Juan I. Nieto-Hipólito Facultad de Ingeniería Arquitectura y Diseño, Universidad Autónoma de Baja California Design and implementation of a microfluidic system for manipulation and study of micro-objects near the bottom of a microchannel based on hydrodynamic forces	
		Sundarapandian Vaidyanathan, Esteban Tlelo-Cuautle, Khaled Benkouider, Aceng Sambas, Ciro Fabian Bermudez-Marquez and Samy Abdelwahab Safaan Research and Development Centre, Vel Tech University, Chennai, Tamil Nadu, India Circuit Design and FPGA Implementation of a New 3-D Chaotic Jerk System with Two Unstable Balance Points	
		Sundarapandian Vaidyanathan, Esteban Tlelo-Cuautle, Khaled Benkouider, Aceng Sambas, Ciro Fabian Bermudez-Marquez and Samy Abdelwahab Safaan Research and Development Centre, Vel Tech University, Chennai, Tamil Nadu, India A New 4-D Hyperchaotic Two-Scroll System with Hidden Attractor, its Circuit Design and FPGA Implementation	