

2023-07-10, Monday (Istanbul TR UTC +3)			MAIN HALL
Award Session (Host: Dumitru Baleanu) MAIN HALL			Click to Zoom 1
Time (UTC+3)	Activity Name		
9:00 AM-	Registration (Registration will last all day)		
9:00-10:00 AM	OPENING CEREMONY Moderator: Dumitru Baleanu Opening Talks: • Adnan Yuksel (Rector) • Mustafa Bayram • Albert Luo • Dumitru Baleanu		
Time (UTC+3)	Awardee	Presentation Titles	
10:00-11:00 AM	Leon O. Chua	Edge of Chaos: The Holy Grail of Complexity	Face to face
11:00-12:00 AM	Celso Grebogi	Chaos and Complexity	Face to face
12:00-01:00 PM	Victor Shrira	Essentially 2d nonlinear evolution equations and collapses in free-surface boundary layers	Face to face
01:00-02:00 PM	Lunch Break		
02:00-03:00 PM	Edson Denis Leonel	Characterization of a continuous phase transition in a chaotic system	Face to face
03:00-04:00 PM	Dumitru Baleanu	New trends in fractional nonlinear dynamics and control	Face to face
04:00-05:00 PM	Vakhtang Putkaradze	Geometric variational methods: molecules, garden hoses, sponges, figure skating, data science, and everything in between	Online
05:00-06:00 PM	Edward Ott	Machine Learning for Predicting the Chaotic Dynamics of Terrestrial Climate and Weather	Online
06:00-06:15 PM	Tassilo Kuepper		Online
06:15-06:45 PM	Awarding Ceremony		
06:45-07:00 PM	Closing Remarks		

2023-07-11, Tuesday (Istanbul TR UTC +3)			MAIN HALL
Keynote Session (Host: Dumitru Baleanu) MAIN HALL			Click to Zoom 1
Time (UTC+3)	Speaker	Presentation Titles	
09:00-09:40 AM	Albert C J Luo	Dynamics and bifurcations of product-quadratic nonlinear systems	Face to face
09:40-10:20 AM	Lev Ostrovsky	Complex nonlinear behavior of elasticity in structured media	Face to face
10:20-11:00 AM	Jamal-Odysseas Maaita	Detecting Chaos	Face to face
11:00-11:40 AM	Jiazhong Zhang	LCSs-based Hidden Structures in Complicated Unsteady Fluid Flows and Their Applications in Flow Control	Face to face
11:40-01:00 PM	Lunch Break		
01:00-01:40 PM	Michael Zaks	High-dimensional continua of equilibrium states in globally coupled ensembles of oscillators	Face to face
01:40-02:20 PM	Miguel A. F. Sanjuán	Exploring the Complexity of Physical Systems: Basin Entropy and Wada Basins	Face to face
02:20-03:00 PM	Mark Edelman	Stability, Periodic Points, and Bifurcations in Generalized Fractional Maps	Face to face
03:00-03:20 PM	Coffee/Tea Break		
03:20-04:00 PM	Vladimir Grebenev	Conformal gauge transformations of the vortex field statistics in optical turbulence	Online
04:00-04:40 PM	Konstantinos Lazopoulos	On Λ -Fractional Analysis and Mechanics	Online
04:40-05:20 PM	Ali Akgül	Applications of the general integral transforms with different kernels	Online
05:20-06:00 PM	Lock Yue Chew	Information Thermodynamics of Finite-Tape Ratchet System	Online
06:00-06:20 PM	Closing Remarks		

2023-07-11, Tuesday (Istanbul TR UTC +3)

Online

Online Parallel Session
(Host: Tugcem Partal, Ebru Das)

[Click to
Zoom3](#)

Time:	Speaker	Presentation Titles	
01:00-01:20 PM	Ersin Yılmaz	Estimation of Partially Linear Model with serially correlated errors based on Kernel Smoothing technique	Online
01:20-01:40 PM	Sergey Borisenok	Quantum Sensing via Superconducting Qubit Control	Online
01:40-02:00 PM	Gökçen Çekiç	An interface capturing approach on falling liquid films	Online
02:00-02:20 PM	Hayatem Hamal	Estimates for modified q-Bernstein-Kantorovich Operators based on weighted convergence	Online
02:20-02:40 PM	Latti Fethi	Regidity Problem of a Natural Metric	Online
02:40-03:00 PM	Zakia Hadjou Bélaid	Conceptual DFT elucidation of the reaction mechanism in polysulfone and polyethylene glycol membranes	Online
03:00-03:20 PM	Slatnia Abousoufyane	Classification and prediction of water quality index using deep learning techniques	Online
03:20-03:40 PM	Snezhana Hristova	Mittag-Leffler Stability in Time for fractional differential equations with Riemann-Liouville fractional derivatives	Online
03:40-04:00 PM	Juan Gonzalo Barajas Ramirez	Generalized Synchronization of Neuron Models with Inhibitory and Excitatory Couplings	Online
04:00-04:20 PM	Rasa Smidtaite	Chialvo neuron model of matrices	Online
04:20-04:40 PM	Remi K. Kouakou	Quenching time of solutions for some semi-linear parabolic equations with Dirichlet boundary conditions and variable reaction	Online
04:40-05:00 PM	Asma Bab	Oscillation result for perturbed Nonlinear Differential Equations	Online
05:00-05:20 PM	Rebiai Ghania	Iterative learning control of general conformable fractional differential equations	Online
05:20-05:40 PM	Arpita Devi	Bifurcation analysis of a COVID-19 dynamical model with saturated treatment with compliance and impact of control measures	Online
05:40-06:00 PM	Closing Remarks		

2023-07-12, Wednesday (Istanbul TR UTC +3)			MAIN HALL
Invited Session (Host: Dumitru Baleanu) MAIN HALL			Click to Zoom1
Time (UTC+3)	Speaker	Presentation Titles	
09:00-09:40 AM	Chunbiao Li	On offset boosting in chaotic system	Face to face
09:40-10:20 AM	Fuhong Min	Route towards chaos in a modified FitzHugh-Nagumo neuron	Face to face
10:20-11:00 AM	Siyuan Xing	On an origami structure of period-1 motions to homoclinic orbits in the Rössler system	Face to face
11:00-11:40 AM	Paweł Olejnik	Efficient and Brute-Force Numerical Algorithms for Computing Basins of Attraction: Analyzing Dynamical Systems with Different Complexity using Julia and Matlab	Online
11:40-01:00 PM	Lunch Break		
Invited Session (Host: Albert Luo) MAIN HALL			Click to Zoom3
01:00-01:40 PM	Roberto Barrio	Mathematical birth of early after depolarizations in cardiomyocytes: fast-slow and bifurcation analysis	Online
01:40-02:20 PM	Xilin Fu	Pulse phenomena and dynamics for impulsive differential systems with the state-dependent impulses	Face to face
02:20-03:00 PM	Vitali Vougalter	On the solvability of some systems of integro-differential equations with concentrated sources	Online
03:00-03:20 PM	Coffee /Tea Break		
03:20-04:00 PM	Minvydas Ragulskis	Finite-Time Divergence in Discrete Maps of Matrices - Theory and Applications	Online
04:00-04:40 PM	Yu Guo	Discrete implicit maps for predicting periodic motions	Online
04:40-05:20 PM	Omer Akin	Some properties of intuitionistic fuzzy theory and using in initial value problems	Online
05:20-06:00 PM	Daniil Yurchenko	Competing bifurcations of a vibroimpact pair	Online
06:00-06:20 PM	Closing Remarks		

2023-07-12, Wednesday (Istanbul TR UTC +3)

HALL-1

**Face to Face Regular Parallel Session
 (Host: Tukur Abdullah Suleaiman)
 HALL-1**

Time:	Speaker	Presentation Titles	
09:00-09:20 AM	Murat Candan	Some new Sequence Spaces Obtained using Trigonometric Functions and Fibonacci numbers	Face to face
09:20-09:40 AM	Ridhwan Reyaz	Laser Irradiation and Riga Plate Effects on Blood Flow with Caputo-Fabrizio Fractional Derivative	Face to face
09:40-10:00 AM	Muhammad Azrin Ahmad	Verification of Mathematical Model of n-th Order Limit Language using Wet-Lab Experiment	Face to face
10:00-10:20 AM	Khalil Ur Rehman	Numerical Solution of Nonlinear Differential System for Non-Newtonian Fluid Model by Using Prediction Application of Artificial Intelligence	Face to face
10:20-10:40 AM	Zeeshan Asghar	Hydrodynamics of gliding bacteria secreting non-Newtonian slime on a solid substrate: An implicit finite difference analysis	Face to face
10:40-11:00 AM	Samir Karaa	Positive definiteness of quadratic forms generated by nearly convex sequences	Face to face
11:00-11:20 AM	Noor Amalina Nisa Ariffin	Analysis on Fluid's Characteristics of Thermal Boundary Layer Flow of Reiner–Philippoff Fluid Model Embedded with Temperature Jump Effect	Face to face
11:20-11:40 AM	Zulkhibri Ismail	Unsteady free convection flow of Casson fluid with chemical reaction past infinite inclined plate	Face to face
11:40-12:00 PM	Abdul Rahman Mohd Kasim	Computational Analysis on Thermal Boundary Layer Flow of Viscoelastic Micropolar Fluid Over a Bluff Body	Face to face

Lunch Break

**Face to Face Regular Parallel Session
 (Host: Abdullahi Yusuf)
 HALL-1**

Time:	Speaker	Presentation Titles	
01:00-01:20 PM	Sharidan Shafie	Impact of Biot Heat Flux and Suction/Injection on MHD Free Convection Carreau Fluid Flow along a vertical tube	Face to face
01:20-01:40 PM	Ahmad Qushairi Mohamad	Impact of Carbon Nanotubes on Convective Nanofluid Flow over a Stretching Sheet with Heat Transfer	Face to face
01:40-02:00 PM	Murat Candan	Some Novel Sequence Spaces Obtained the Composition of Binomial matrix and Double sequential Band Matrix	Face to face
02:00-02:20 PM	Murat Candan	Generalized Binomial Difference Sequence Spaces of Fractional Order	Face to face
02:20-02:40 PM	Murat Candan	Sequential Convergence in Generalized Topological Spaces	Face to face
02:40-03:00 PM	Zaki Ayoub	On an elliptic equation of $p(x)$ -Kirchhoff type with convection term and singular weights	Face to face

Coffee/Tea Break

03:00-03:20 PM			
03:20-03:40 PM	Daria Gladskikh	Three-dimensional numerical modeling of biochemical processes in land water bodies	Face to face
03:40-04:00 PM	Khachnaoui Khalel	Existence result for fractional Schrödinger equations with critical nonlinearity	Face to face
04:00-04:20 PM	Rafika Souag	The Experimental and theoretical evaluation of α -Keratin obtained from sheep horns for Co_2 + adsorption: Adsorption isotherms, kinetics, and thermodynamic studies	Face to face
04:20-04:40 PM	Lotfi Boudjenah	Optimal Control for Nonlinear Time Delay Systems	Face to face
04:40-05:00 PM	Djamal Hamadi	The Efficient Geometrical Nonlinear Analysis Method for Engineering Structures	Face to face
05:00-05:20 PM	Nassim Touche	Estimating RCA model parameters using machine learning technique	Face to face
05:20-05:40 PM	Samet Erden	Some inequalities involving Riemann-Liouville Fractional integrals for Hölder and Lipschitzian functions	Face to face

Closing Remarks

2023-07-12, Wednesday (Istanbul TR UTC +3)			Online
Online Regular Parallel Session (Host: Melih Cinar, Handeur Esen)			Click to Zoom8
Time:	Speaker	Presentation Titles	
01:00-01:20 PM	Yew Sheng Ku	Optimal Control Strategies for Dengue Transmission in Selangor, Malaysia	Online
01:20-01:40 PM	Anupama Sebastian	Unpinning of Chemical Waves at Resonance Pacing using Polarised Electric Fields	Online
01:40-02:00 PM	Hichem Kasri	Existence and dynamical behaviors of solutions to linear isotropic elasticity system with dynamic Wentzell boundary conditions	Online
02:00-02:20 PM	Juan Gonzalo Barajas Ramirez	Synchronization of bidirectionally coupled nonidentical chaotic systems	Online
02:20-02:40 PM	Rabah Ksouri	Ab initio study on structural, mechanical and thermodynamic properties of Manganese chalcogenides MnTe under pressure	Online
02:40-03:00 PM	Amira Fellous	Results on stability and square integrability of solutions to multidelay neutral differential equations of third order	Online
03:00-03:20 PM	Mekki Houbad	WKB Analysis for a multi-dimensional Burger's system	Online
03:20-03:40 PM	Farai Nechikwira	Oscillation Criteria for a Dynamic Equation on a Time Scale	Online
03:40-04:00 PM	Cezary Graczykowski	Analytical and numerical modelling of thermo-mechanical behavior of additively manufactured Continuous Carbon Fibre Reinforced Polylactide (CCFRP)	Online
04:00-04:20 PM	Osman Tunc	Improved outcomes for nonlinear delay integro-differential equations	Online
04:20-04:40 PM	Charutha S	Fractal analysis on albumin gene sequences	Online
04:40-05:00 PM			Online
05:00-05:20 PM			Online
05:20-05:40 PM			
05:40-06:00 PM	Closing Remarks		

2023-07-13, Thursday (Istanbul TR UTC +3)			MAIN HALL
Invited Session (Host: Dumitru Baleanu) MAIN HALL			Click to Zoom1
Time:	Speaker	Presentation Titles	
09:00-09:40 AM	George Anastassiou	q-Deformed and lambda-parametrized hyperbolic tangent function based Banach space valued multivariate multi-layer neural network approximations	Online
09:40-10:20 AM	Shahram Rezapour	Numerical Solutions for Quantum Inclusions with Simulation	Online
10:20-11:00 AM	Anita Tomar	Some Applications of Existence of Fixed Points in Nonlinear Science	Online
11:00-11:40 AM	Michael Small	Choosing embedding lag and why it matters	Online
11:40-01:00 PM	Lunch Break		
01:00-01:40 PM	Carla Pinto	A normalized fractional gradient algorithm for nonlinear input-output error systems	Online
01:40-02:20 PM	Xiao Jun Yang	New Challenges in Fractional Calculus	Online
02:20-03:00 PM	Yury Stepanyants	Solitary waves in the cylindrical Kadomtsev–Petviashvili equation	Online
03:00-03:20 PM	Coffee/Tea Break		
Symposia Nonlinear Models and Control of Biological Systems Dumitru Baleanu, Carla M.A. Pinto, Amin Jajarmi (MAIN HALL)			Click to Zoom3
Time:	Speaker	Presentation Titles	
03:20-03:40 PM	Mohamed Fenni	Artificial Neural Network Analysis of Intensive Vegetable Farming Practices and Human Health	Face to face
03:40-04:00 PM	Saida Bakht	Viral infection with diffusion: Modeling, Mathematical Analysis and Numerical Simulation	Face to face
04:00-04:20 PM	Bouzidi Abdelouahab	Analysis of parameters of an epidemiological survey on hepatitis A, B, C in the state of Sétif (East Algeria).	Face to face
04:20-04:40 PM	Mahdeb Nadia	Analysis of data from a disease survey in the school sector of a region of Ain Arnat (Sétif East-Algeria).	Face to face
04:40-05:00 PM	Sara Dridi	Decidability criterion for regional controllability of Cellular Automata models	Online
05:00-05:20 PM	Closing Remarks		

2023-07-13, Thursday (Istanbul TR UTC +3)

HALL-1

Symposia
Nonlinear dynamics of engineering systems
Siyuan Xing, Pierpaolo Belardinelli
(HALL-1)

[Click to Zoom8](#)

Time:	Speaker	Presentation Titles	
09:00-09:20 AM	Lincong Chen	Random Jump and Bifurcation of Bouc-Wen System subjected to combined periodic and stochastic excitation – RBFNN Solution	Online
09:20-09:40 AM	Xu Sun	Vortex-Induced Vibration of an Eccentric Circular Cylinder: Mechanism and Potential Application	Face To Face
09:40-10:00 AM	Vitalii Pauls	Finite Element Analysis of initially curved, Extensible Euler-Bernoulli Beams (Arches) with stretching-due-to-bending Effect	Online
10:00-10:20 AM	Siyuan Xing	Separable Gaussian Neural Networks: Structure, Analysis, and Function Approximations	Face To Face
10:20-10:40 AM	Jianzhe Huang	A self-updated digit twin model for a discontinuous dynamical system with boundaries varying with the working conditions	Face to face
10:40-11:00 AM	Lukasz Kolada	Multistable cantilever shell with embedded MFC patch: seeking energy harvesting efficiency from mechanical vibrations	Face to face

Symposia
Fractional Calculus in Complex and Nonlinear Systems
Yeliz Karaca, Dumitru Baleanu, Yu-Dong Zhang, Akif Akgül
(HALL-1)

HALL-1

[Click to Zoom5](#)

11:00-11:20 AM	Akif Akgul	A Novel Chaotic and Convolutional Architecture-Supported Encryption Mechanism	Online
11:20-11:40 AM	Suzan Jabbar Obaiys	Conformable Fractional Differential Operator Associated with Special Function	Face to face
11:40-12:00 PM	Zizhen Zhang	Impact of time delay on a prey-predator model with switching functional response	Online
12:00-12:20 PM	Mati ur Rahman	Theoretical and Numerical Investigation of a New ABC Fractional Operator for the Multi-strain Tuberculosis Mathematical Computing Model	Online
12:20-01:20 PM	Lunch Break		

Symposia
Lie group analysis and its applications to real-world problems
*Chaudry Masood Khalique,
 Maria Luz Gandarias*
(HALL-1)

HALL-1

[Click to Zoom10](#)

Time:	Speaker	Presentation Titles	
01:20-01:40 PM	Lijun Zhang	Solitary wave solutions of the singularly perturbed nonlinear partial differential equation	Face to face
01:40-02:00 PM	Chaudry Masood Khalique	Lie symmetry analysis of a nonlinear partial differential equation	Face to face
02:00-02:20 PM	Oke Davies Adeyemo	An optimal system of Lie subalgebras and group-invariant solutions with conserved currents of a (3+1)-D fifth-order nonlinear model I in science	Online
02:20-02:40 PM	Muhammad Mubashir Bhatti	Application of Lie symmetry for non-Newtonian fluid flows	Online
02:40-03:00 PM	Jonathan Lebogang Bodibe	Exact solutions and Conserved vectors of the generalized equal width equations	Online
03:00-03:20 PM	Mduzizi Yolane Thabo Lephoko	Conserved vectors and soliton solutions of the Landau-Ginzburg-Higgs equation	Online
03:20-03:40 PM	Karabo Plaatjie	A study of generalized (2+1) dimensional equal-width partial differential equation of engineering	Online
03:40-04:00 PM	Closing Remarks		

2023-07-13, Thursday (Istanbul TR UTC +3)

HALL-2

**Face to Face Regular Parallel Session
 (Host: Amar Debbouche)
 HALL-2**

Time:	Speaker	Presentation Titles	
09:00-09:20 AM	Aicha Anzi	Study of an algorithm for nonlinear two-level problems	Face to face
09:20-09:40 AM	Aicha Bareche	Transformation kernel density estimation for approximating ruin probabilities in risk models using the operator method: Application to financial data	Face to face
09:40-10:00 AM	Saqib Murtaza	Fractal Fractional Analysis of Non-Linear Electro Osmotic Flow with Cadmium Telluride Nanoparticles	Face to face
10:00-10:20 AM	Mduduzi Thabo Lephoko	Conserved vectors and soliton solutions of the Landau-Ginzburg-Higgs equation	Face to face
10:20-10:40 AM	Badis Bennecer	Structural, elastic and vibrational properties of KCuSe and KCuTe	Face to face
10:40-11:00 AM	Amar Debbouche	Cancer Dynamic Systems: Mathematical Modelling for noninfectious diseases	Face to face
11:00-11:20 AM	Abderrahmen Bouguerra	passive fault-tolerant control method based on feedback linearization control technique of two tanks system	Face to face
11:20-11:40 AM	Benseghir Aissa	Existence Of the Solution of A Nonlinear Boundary Problem and Optimal Control	Face to face
11:40-12:00 PM	Insaf Adjabi	Single sample face recognition using multi-resolution analysis of color texture features	Face to face
12:00-01:00 PM	<i>Lunch Break</i>		

**Face to Face Regular Parallel Session
 (Host: Tugcem Partal, Melih Cinar)
 HALL-2**

Time:	Speaker	Presentation Titles	
01:00-01:20 PM	Dilmi Mourad	Asymptotic behavior of a Nonlinear Boundary Value Problem with Friction	Face to face
01:20-01:40 PM	Keltoum Loukal	Backstepping fault-tolerant control for a Satlan system with actuator fault	Face to face
01:40-02:00 PM	Nabil Kribes	Vibration modeling during turning of Ti-6Al-4V using two different methods response surface methodology (RSM) and artificial neuron network (ANN)	Face to face
02:00-02:20 PM	Abdelkrim Khireddine	Capacity Analysis for Urban Area Scenario for Long Term Evolution–Advanced with Wireless Network Service	Face to face
02:20-02:40 PM	Lynda Mezghiche	Existence and uniqueness results for a class of delay differential equations with iterative terms	Face to face
02:40-03:00 PM	Tuğcem Partal	Stochastic Epidemic Models in Discrete Time	Face to face
03:00-03:20 PM	<i>Coffee/Tea Break</i>		
03:20-03:40 PM	Chaima Saadi	Existence and Uniqueness result for semilinear fractional system involving a fractional gradient	Face to face
03:40-04:00 PM	Rehouma Abdelhamid	Two Orthogonal polynomials linear combinations of Chebyshev polynomials of different kinds	Face to face
04:00-04:20 PM	Bahia Barache	Mann's Iterative Numerical Method for Solving Fredholm Integral Equation	Face to face
04:20-04:40 PM	Rachid Boukoucha	On the dynamics of a class of differential systems with two limit cycles	Face to face
04:40-05:00 PM			Face to face
05:00-05:20 PM	Leila Younsi née Abbaci	Stochastic Fractional Optimization Over Integer Efficient Set by Chance-Constrained Method	Face to face
05:20-05:40 PM	Idrissi Fatmi Nadia	Analyzing the effect of Trastuzumab Treatment On Breast Cancer Stages And Cardiac Function: Mathematical Modeling And Numerical Simulation	Face to face
05:40-06:00 PM	Karima Bouibed	Nonlinear semivectorial bilevel optimization problem: Formulation and optimality conditions	Face to face
06:00-06:20 PM	Turgut Yeloglu	Numerical solutions of systems of nonlinear differential equations using a collocation method	Face to face

2023-07-13, Thursday (Istanbul TR UTC +3)			Online
Online Regular Parallel Session (Host: Neslihan Ozdemir, Gülsemay Yigit)			Click to Zoom11
Time:	Speaker	Presentation Titles	
01:00-01:20 PM	Lakshmi Narayan Mishra	Numerical solution of Itô Volterra integral equations by the Chebyshev wavelets and parallel computing process	Online
01:20-01:40 PM	Karek Chafia	Homogenization of quasilinear elliptic problems in a perforated domain with L^1 data	Online
01:40-02:00 PM	Marwa Khemis	On positive periodic solutions of a neutral model of hematopoiesis with iterative production and harvesting terms	Online
02:00-02:20 PM	Melike Karta	A new viewpoint for numerical analysis of the modified regular long wave equation using operator splitting method	Online
02:20-02:40 PM	Parvej Khan	Collective dynamics of pinned corotating rotors: synchronization transition	Online
02:40-03:00 PM	Chebbah Mohammed	Fuzzy Stochastic, Global Optimization (multi- Objectives), resolutions, Numerical simulations and Software.	Online
03:00-03:20 PM	Ibrahim Halil Aslan	Re-assessing thermal sensitivity of schistosomiasis transmission rates in the era of climate change: evidence for higher thermal optimum than previously predicted.	Online
03:20-03:40 PM	Karima Saidi	On the stabilization of bilinear systems in finite dimensional by various feedback laws: application to discretized Vlasov-Poisson system	Online
03:40-04:00 PM	İsmet Yıldız	$1/(2^r)$ order starlike and convex functions on some of meromorphic functions	Online
04:00-04:20 PM	Felipe Eduardo Lopes da Cruz	How to compute minimum diagonal length for recurrence analysis of continuous systems	Online
04:20-04:40 PM	Sudhamayee kamanoor	Classification of Seizure Stages in Electroencephalogram using Simplicial Analysis	Online
04:40-05:00 PM	Mehmet Onur Fen	Occurrence of Period-Doubling Cascades in Response Systems with Delay	Online
05:00-05:20 PM	Toufik Roubache	Observer for sensorless control of a doubly fed induction motor drive in EV	Online
05:20-05:40 PM	Naima Meskine	A qualitative Study on the Greitzer model with Axial compressor	Online
05:40-06:00 PM	Imane Djaidja	General decay for a translational viscoelastic Euler-Bernoulli beam	Online
06:00-06:20 PM	Imane Djaidja	General and optimal decay result for a viscoelastic Timoshenko beam fixed into a moving base	Online
06:20-06:40 PM	Benniche Omar	Some invariance results for fractional differential equations	Online
07:40-07:20 PM	Closing Remarks		

2023-07-14, Friday (Istanbul TR UTC +3)

**MAIN
HALL**

Symposia
Theory and Applications in nonlinear dynamical systems
 Maaïta Jamal- Odysseas, Meletlidou Efthymia, Volos Christos
(MAIN HALL)

[Click to
Zoom1](#)

Time:	Speaker	Presentation Titles	
09:00-09:20 AM	Makrina Agaoglou	Uncertainty Quantification of Ocean Models using dynamical system tools	Online
09:20-09:40 AM	Thomas Kotoulas	Semi-separable potentials as solutions to the 3D Inverse Problem of Dynamics. I	Online
09:40-10:00 AM	Sahar Jenhani	Robust Control of a Knee Exoskeleton Robot for Enhanced Stability During Lower Limb Rehabilitation	Online
10:00-10:20 AM	Savvas Kosmidis	Application of a 4-D system without equilibrium points to Random Bit Generator and Image Encryption	Online
10:20-10:40 AM	Nikolaos Chatzarakis	Stagnation and cycles in a Circuit of Capital model	Face To Face
10:40-11:00 AM	Lazaros Moysis	False Strange Attractors as Sources of Pseudo-Randomness	Online
11:00-11:20 AM	Lazaros Laskaridis	Dynamical Investigation of an Active Discrete Memristor Model with an Exponential Memristance	Online
11:20-11:40 AM	Nikolaos Charalampidis	Composition of odd exponent polynomial functions with chaotic maps for enhancing chaos	Online
11:40-12:00 PM	Vasileios Vachtsevanos	Epidemiological models using weighted graphs and differential equations	Online
12:00-01:00 PM	Lunch Break		
01:00-01:20 PM	Essia Added	Adaptive Gain Matrix Control for Chaos Mitigation and Accurate Human Walking Replication in the Compass-type Bipedal Robot	Online
01:20-01:40 PM	Dimitrios Kaltsas	Nambu bracket formulation and conservative discretization of a Hamiltonian magnetic reconnection model	Online
01:40-02:00 PM	Vasilios Konstantoudis	Chaos-based characterization of the spatial complexity of microscopy images	Online
02:00-02:20 PM	Dimitrios Prousalis	Exploring Mutual Synchronization: Network Stability, Effect of Time- Delay and Combination with Hierarchical Entrainment	Online
02:20-02:40 PM	Coffee/Tea Break		
Symposia Discrete Fractional Calculus and its Applications Mark Edelman, Minvydas Kazys Ragulskis (MAIN HALL)			MAIN HALL Click to Zoom3
Time:	Speaker	Presentation Titles	
02:40-03:00 PM	Mark Edelman	History of the Development of the Notion of Generalized Fractional Maps	Face to face
03:00-03:20 PM	Pavel Dubovski	A modified approach to discrete fractional mappings	Face to face
03:20-03:40 PM	J. Alberto Conejero	Predictive machine learning models for fractional dynamics	Online
03:40-04:00 PM	Minvydas Ragulskis	On the divergence rate of the fractional difference logistic map of nilpotent matrices	Online
04:00-04:20 PM	J. A. Mendez-Bermudez	Leaking From the Phase Space of The Riemann-Liouville Fractional Standard Map	Online
04:20-04:40 PM	Sachin Bhalekar	Complex Order Fractional Maps: Stability Analysis	Online
04:40-05:00 PM	Closing Remarks		

2023-07-14, Friday (Istanbul TR UTC +3)			HALL-1
Symposia Advancements in Soliton Theory and Analytical Methods Mir Sajjad Hashemi, Aydin Secer, Muslum Ozisik, Mustafa Bayram, Mohammad Mirzazadeh (HALL-1)			Click to Zoom8
Time:	Speaker	Presentation Titles	
09:00-09:20 AM	Gulsemay Yigit	Domain-dependent stability analysis and numerical simulations for a reaction-diffusion system with cross-diffusion on two dimensional geometries	Face to face
09:20-09:40 AM	Melih Cinar	The Complex Cubic-Quintic Ginzburg-Landau Equation having Anti-Cubic Law Nonlinearity and Its Optical Solitons	Face to face
09:40-10:00 AM	Neslihan Ozdemir	Bright soliton structure of Perturbed Schrödinger-Hirota equation with cubic-quintic-septic law of self-phase modulation	Face to face
10:00-10:20 AM	Melih Cinar	Soliton Solutions of the Drinfeld-Sokolov-Satsuma-Hirota Equation	Face to face
10:20-10:40 AM	Melih Cinar	Soliton Solutions of the perturbed Radhakrishnan-Kundu-Lakshmanan model	Face to face
10:40-11:00 AM	Handenur Esen	On Soliton Solutions of Parabolic Law with Non-Local Nonlinearity for Improved Perturbed Nonlinear Schrödinger Equation	Face to face
11:00-11:20 AM	Mir Sajjad Hashemi	Utilizing Nucci's Reduction Method for Obtaining Soliton Solutions of the Schrödinger Equation: An Exploration of its Applications	Face to face
11:20-11:40 AM	Neslihan Ozdemir	On optical soliton solution of the nonlinear Schrödinger's equation having Quadrupled Power-Law Nonlinearity	Face to face
11:40-12:00 PM	Yakup Yıldırım	Exploring soliton solutions with cross spatio-dispersive effects and Kudryashov's self-phase modulation in the extended (3+1)-dimensional nonlinear Schrödinger's equation	Online
12:00-01:00 PM	Lunch Break		
Time:	Speaker	Presentation Titles	
01:00-01:20 PM	Ebru Das	Optical solitons of (2+1)-dimensional Biswas-Milovic equation having kerr law nonlinearity	Online
01:20-01:40 PM	Pinar Albayrak	Retrieval optical solitons of perturbed Radhakrishnan-Kundu-Lakshmanan equation	Online
01:40-02:00 PM	Ebru Das	Optical solitons of dispersive Schrödinger-Hirota equation having cubic-quintic-septic law nonlinearity with spatio-temporal dispersion	Online
02:00-02:20 PM	Pinar Albayrak	Dimensionless form of (1+1)-dimensional Radhakrishnan-Kundu-Lakshmanan equation with parabolic law of self-phase modulation in the presence of group velocity dispersion	Online
02:20-02:40 PM	Selvi Altun	Reveal of optical pulse envelop of the perturbed Schrödinger-Hirota equation with anti-cubic law nonlinearity	Online
02:40-03:00 PM	Ismail Onder	Optical Soliton Solutions of Stochastic Nonlinear Schrödinger Equation with Kerr Law Nonlinearity	Online
03:00-03:20 PM	Muslum Ozisik	Extracting optical soliton perturbations for the perturbed Gerdjikov-Ivanov equation in the existence of the spatio-temporal dispersion	Online
03:20-03:40 PM	Hasan Cakicioglu	Optical soliton solutions of Schrödinger-Hirota equation with stochastic distribution with multiplicative white noise and nonlinear parabolic law via Ito calculus	Online
03:40-04:00 PM	Zulfiye Melisa Sayginer	On optical solitons of the (1+1)-dimensional Biswas-Milovic equation having parabolic-law with weak non-local nonlinearity in the presence of spatio-temporal dispersion	Online
04:00-04:20 PM	Closing Remarks		

2023-07-14, Friday (Istanbul TR UTC +3)			HALL-2
Face to Face Regular Parallel Session (Host: Huseyin Aydin) HALL-2			
Time:	Speaker	Presentation Titles	
09:00-09:20 AM	Rasha Al Jamal	An Input Feedback Control Design for the Benny-Lin Equation with Localized Damping	Face to face
09:20-09:40 AM	Said Eladj	Nonlinear Modeling of Low Resistivity Pay Zones in Geophysics: Estimating Water Saturation using Machine Learning	Face to face
09:40-10:00 AM	Leslous Fadila	New method for solving a non-linear, non-convex fractional optimization problem	Face to face
10:00-10:20 AM	Mouhadjer Lotfi	Solving nonlinear semidefinite programming problems via Newton's method	Face to face
10:20-10:40 AM	Taylan Demir	Discrete Fractional Operators and Their Applications	Face to face
10:40-11:00 AM	Razi Khan	Entropy Generation Analysis of a FENE-P non-Newtonian Polymeric Fluid with Soret and Dufour Effects	Face to face
11:00-11:20 AM	Lukasz Kloda	Multistable cantilever shell with embedded MFC patch: seeking energy harvesting efficiency from mechanical vibrations	Face to face
11:20-11:40 AM	Salima Kendi	Hub location for a food supply chain network design problem	Face to face
12:00-01:00 PM	Lunch Break		
Face to Face Regular Parallel Session (Host: Yakup Yildirim) HALL-2			
Time:	Speaker	Presentation Titles	
01:00-01:20 PM	Razika Sait	Endogenous Formation of Joint Research lab with heterogeneous firms: Approach by formation coalition games	Face to face
01:20-01:40 PM	Motassem Al-Arydah	Mathematical modeling of infectious disease incorporating a vaccine and variable immunity period	Face to face
01:40-02:00 PM	Pshtiwan Mohammed	Novel discrete monotonicity results for delta sequential fractional operators	Face to face
02:00-02:20 PM	Chandan Maji	The effects of fear on a predator-prey system in a polluted environment	Face to face
02:20-02:40 PM	Anupam Pandey	Mathematical model of a catheterised oesophagus affected with Hiatus Hernia	Face to face
02:40-03:00 PM	Fernane Khaireddine	Chebyshev spectral element method for solving Volterra-integro differential equations	Face to face
03:00-03:20 PM	Coffee/Tea Break		
03:20-03:40 PM	Sabah Baibeche	On the stability of solution for Transmission problem for one dimensional wave equations in the absence of the nonlinear weight of the damping with history term under effects of varying delay term	Face to face
03:40-04:00 PM	Rayane Leulmi	Modeling and Steady-state Analysis of a Wind Power System Based on a Doubly-fed Induction Generator	Face to face
04:00-04:20 PM	Zoubir Dahmani	Some Intersting Fractional Differential Equations and Their Limiting Cases	Face to face
04:20-04:40 PM	Badrosadat Afzali	Technology And Applications of Smart Grid	Face to face
04:40-05:00 PM	Benheniche Abdelhak	Speed and rotor flux estimation for sensorless control Induction Motor using the Circle Criterion Observer	Face to face
05:20-05:40 PM	Sertan Alkan	Approximate solutions of a class of nonlinear initial value problems using Pell collocation method	Face to face
05:40-06:00 PM	Closing Remarks		

2023-07-14, Friday (Istanbul TR UTC +3)			Online
Online Regular Parallel Session (Host: Melih Cinar, Handeur Esen)			Click to Zoom5
Time:	Speaker	Presentation Titles	
01:00-01:20 PM	Maria Legouirah	Numerical Modeling of Reinforced Shell Structure by An Efficient Solid Finite Element	Online
01:20-01:40 PM	Rania Bouzid	Analysis of the Application of Artificial Neural Networks in Solving Forward Kinematics Problems for Manipulator Robots with Diverse Dataset Formats	Online
01:40-02:00 PM	Ehab Esmail	Water pollution (water pollution in Egypt) The science of integrating bioinformatics, econometrics, and artificial intelligence	Online
02:00-02:20 PM	Mohammad Esmael Samei	Global Solutions for a Generalized Fractional Sq\$-Differential Equation in an Appropriate Weighted Space of Continuous Functions	Online
02:20-02:40 PM	Jayesh Patel	Fuzzy Economic Order Quantity (EOQ) Model through Fractional Backorder	Online
02:40-03:00 PM	Vishnu Narayan Mishra	A study on approximation properties of Durrmeyer type operator based on Beta function	Online
03:00-03:20 PM	Feeroz Babu	Extragradient method for non-monotone Variational Inequality problems on Hadamard Manifolds	Online
03:20-03:40 PM	Bashir Nawaz	A New Fast Iterative Process for Fixed Point Estimation of Suzuki Mappings	Online
03:40-04:00 PM	Ankur Jyoti Kashyap	A Fear-Affected Stage-Structured Predator-Prey Model	Online
04:00-04:20 PM	Zahid Ali	A Meshless Method for The Solutions of Variable Order fractional Partial Differential Equations Via Radial Bases Functions	Online
04:20-04:40 PM	Nadia Alrehele	Polynomial coding theory to detect and correct errors in any codeword.	Online
04:40-05:00 PM	Shumaila Javeed	Mathematical Modeling of Cancer with Mixed Therapies	Online
05:20-05:40 PM	Ume Ayesha	Prediction of Optimal Fertility Treatment using Machine Learning Algorithms	Online
Closing Remarks			

2023-07-14, Monday-Friday (Istanbul TR UTC +3)			
POSTER SESSIONS Between 10-14 July Free Time			
Time:	Presenter	Presentation Titles	
Free-Time	Bouزيد Boudjema	Optimization design parameters for desired magnetic flux density in the air-gap of PMSM motors using inverse method	Face to face
Free-Time	Zeghlache Samir	Nonlinear controller of an Octocopter UAV Based on interval type-2 fuzzy sliding-mode control	Face to face
Free-Time	Hilal Rahali	Performances of Robust Sliding Mode with Type-2 Fuzzy Logic Controller for Dual Star Induction Motor	Face to face
Free-Time	Benyettou Louf	Diagnosis of Static DC-AC Converters Application to the parallel active filter	Face to face
Free-Time	Abdelmalek Elhadi	Determination of the contact temperature of a couple of materials in friction by the Archard model	Face to face
Free-Time	Brahim Ladghem Chikouche	Semi-numerical Magnetic Field Calculation for Synchronous Machines by Using Hybrid Model	Face to face
Free-Time	Mohammed Boualem	Sensitivity analysis of a single server retrial queue with priority mechanism	Face to face
Free-Time	Djalab Abdelhakim	Experimental and statistical investigation of the wear and surface roughness of a rolling contact in a polluted environment	Face to face
Free-Time	Merabti Salem	Study of L-shaped Walls with Openings in Medium-Rise Buildings Subjected to High Seismic Risk Using Nonlinear Methods	Face to face
Free-Time	Miloud Bentoumi	DWT and STFT applied to Detect and locate leaks in WDNs	Face to face
Free-Time	Farid Tafnine	Comparative study between two artificial intelligence techniques (NN and SVM) applied in fault diagnosis of Wind Turbine	Face to face
Free-Time	Haddi Bakhti	Design of leaks detection and localization in WDNs based on LabVIEW and pressure signals	Face to face
Free-Time	Bounechada Mustapha	Neural Network Analysis of Factors Promoting Parasitic Vectors Transmission from Animals to Humans	Face to face
Free-Time	Allag Fateh	Fuzzy Analysis of Factors Associated with Air Pollution in Disease Propagation	Face to face
Free-Time	Mohamed Houas	Existence and ML-Ulam-Stability Results of Sequential Pantograph Equation with Riemann-Liouville-Caputo Fractional Derivatives	Face to face
Free-Time	Abdelmadjid Chelli	First report on the damage caused by a new bark beetles pest on fig trees in the Bejaia region (north central Algeria)	Face to face
Free-Time	Amir Benzaoui	Palprint Authentication using Triangular and Orthogonal Local Binary Patterns	Face to face
Free-Time	Abdelaziz Daoudi	Baysian Network Model for cardiovascular diseases diagnosis	Face to face
Free-Time	Brahim Belfarhi	Study of the deformation phenomenon in a ternary Al-Mg-excess-Si aluminum alloy	Face to face
Free-Time	Fares Serradj	TEM Study of Precipitation Hardening and Dispersoid Particles in an Al-Mg-Si Alloy	Face to face
Free-Time	Bariza Boutarfa	Study of Thermal and Mechanical properties of an Al-4%Cu aluminum alloy	Face to face
Free-Time	Louiza Berdjoudj	Large deviation principle and application to queueing systems	Face to face
Free-Time	Nedjemeddine Dardar	Mixed nonlocal boundary value problem for implicit fractional differential equation involving both retarded and advanced arguments	Face to face
Free-Time	Abdelhalim Khenchouche	SARS-CoV-2 Infection and Persistence in the Community: Assessing the Risk of Cyclic Pandemics	Face to face
Free-Time	Aicha Bouhezza	Numerical Analysis Study of a Tri-Hybrid Nanofluid Flow in a Vertical Pipe	Face to face
Free-Time	Amel Noui	An efficient DCA algorithm for solving non monotone affine variational inequalities problem	Face to face
Free-Time	Aya Khaldi	Asymptotic behaviour of solutions for wave Equation with multiple $\alpha(x)$ -laplacian and variable-exponent nonlinearities	Face to face
Free-Time	Nassima Sotehi	Numerical modeling of mixed convection in a horizontal pipe containing an electronic component in the presence of a nanofluid	Face to face
Free-Time	Luis E. Reyes-Lopez	S-box generation bases on dynamical systems with a selection criterion	Face to face
Free-Time	Medoued Ammar	Comparative study of different MPPT methods for a wind turbine	Face to face

INTERNATIONAL CONFERENCE ON NONLINEAR SCIENCE AND COMPLEXITY, 2023 (ICNSC 2023)
 Biruni University, Istanbul, Turkey, **10- 15 July 2023, ISTANBUL, Turkey (UTC +3)**

Free-Time	Aziz Saaidia	Mathematical study of absorption behavior using artificial neural Network (ANN) and surface methodology response (RSM) methods	Face to face
Free-Time	Safia Hocine	Numerical resolution for differential equation	Face to face
Free-Time	Baya Takhedmit	Sensitivity analysis of Basket option model	Face to face
Free-Time	Medoued Ammar	Comparative analysis of various MPPT techniques for a wind turbine	Face to face
Free-Time	Safia Bazine	Fixed point theorem under Hardy-Rogers contraction	Face to face
Free-Time	Radouane Daira	Influence of Al Doping on the Physical Properties of CuO Films	Face to face
Free-Time	Rahima Boulechfar	Theoretical investigation of the ground states properties of Fe-Pt alloy.	Face to face
Free-Time	Rahima Benchabi Lanani	Numerical Study of the Thermal and Hydraulic Characteristics of the SiO ₂ –Water Nanofluid through a Backing-Facing Step	Face to face
Free-Time	Ismail Haddad	Secure Image Encryption via Enhanced Fractional Order Chaotic Map	Face to face
Free-Time	Ferkous Hana	Teoretical study and weight loss test of Corrosion inhibitors for coper by methanol extract of Ros marinus officinalis in acidicsolution	Face to face
Free-Time	Boudiaf Mohamed	Mathematical Foundations of Artificial Intelligence: Empowering Innovation and Reliable Systems	Face to face
Free-Time	Ferkous Hana	Theoretical and Electrochemical investigation of corrosion behavior impact OF sulfamidophosphonate concentration on the of stainless steel 304L in 1M sulfuric acid:	Face to face
Free-Time	Izzeddine Chalabi	Comparative Study of non-Gaussian Radar Clutter Modelling Using Compound Models	Face to face
Free-Time	Yasmina Bouaoud	Impact of setting metals on structural properties of (Diphenyl-Amin-4 sulfonate poly {tetraaquabis(4,4'-bipyridine)Zinc(II)}hydrate) PHASE	Face to face
Free-Time	Badrosadat Afzali	On generalized intuitionistic fuzzy subhyperalgebras of Boolean hyperalgebras	Face to face
Free-Time	Nasri Nassima	Fractional Bullen-Simpson type inequalities for differentiable s-convex functions	Face to face
Free-Time	Nacira Hamlaoui	Evaluation of JIC using FEM in HDPE 100 pipes	Face to face
Free-Time	Hakan Adiguzel	An Investigation of Solutions of Fuzzy Differential Equations	Face to face