Institute of Mathematics and Computer Science Department of Mathematics
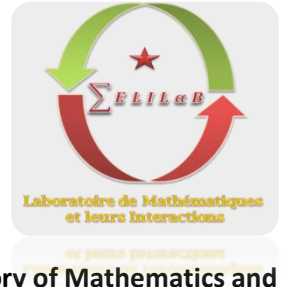
Laboratory of Mathematics and their Interactions

International Conference on Contemporary Mathematics and its Applications (ICCMA 2023) 26-27 November 2023, Mila - Algeria

Conference Program (Face-to-face)

Sunday, November 26, 2023:

Opening Ceremony

08:30 - 09:00

The director of the Abdelhafid Boussouf University Center of Mila

Prof. BOUCHELAGHEM Amirouche

Welcome word

Plenary Conference

09:00 - 10:00

Prof. René Lozi (Université Côte d'Aur, Nice, France)

Conference title: *Are chaotic dynamical systems useful for the advancement of science?*

10:00 - 10:30
coffee break

Google Meet Link: https://meet.google.com/qkg-ukcm-cqo

Session: A   (Control, Opt + Game Theo, Economic + Prob +Stat)

Chairmen: Boukhetala kamal - Dalah Mohamed

Hour	Speaker	Presentation Title
10:30 - 10:50	Saffidine Rebiha	Sub-finsler geodesics on the grushin plane
10:50 - 11:10	Redjil Amel	On optimal control and temporal regularity of g- stochastic differential equations
11:10 - 11:30	Hamimes Ahmed	Inference for binomial change point data using the bayesian approach
11:30 - 11:50	Kraria Aicha	Primal-dual interior-point algorithm for linear programming based on a new search direction
11:50 - 12:10	Billel Zaoui	Complexity analysis and numerical implementation of a new interior point method for convex quadratic optimization
12:10 – 12:30	Bencherif Abdelatif	On the local time of a reflecting brownian motion
12:30 – 12:50	Madi Meriem	Rate of complete second-order moment convergence of kernel density function
13:00 - 14:00		**Lunch break**
14:00 - 15:00		**Plenary Conference** **Prof. Saber Elaydi** (Trinity University, USA) "A Journey into Global Stability: From Monotone to Mixed Monotone and from autonomous to nonautonomous"
15:00 – 15:20	Manel Elbatoul Merai	Uniform almost complete convergence of a familly of recrusive kernel estimators
15:20 – 15:40	Aissaoui Faris	Quasi maximum likelihood estimation for tvgarch processes
15:40 – 16:00		

Session: B   (Math Phys)

Chairmen: Merad Mahmoud – Boudjedaa Tahar

Hour	Speaker	Presentation Title
10:30 - 10:50	Nadjiba Moures	Solution of the dirac-graphene equation in the combination of a volkov plane wave and a constant magnetic field
10:50 - 11:10	Bouchefra Djahida	Exact solutions of the dirac equation with the modified double ring-shaped generalized cornell potential
11:10 - 11:30	Hallous Ahlam	Path integral for spinning particle in external gravitation and torsion fields
11:30 - 11:50	Boukhrouf Hadjer	Su(4)/sp(4) composite higgs and its implications at colliders
11:50 - 12:10	Chouchane Lamia	A history-dependent sliding contact problem for electro-viscoelastic materials
12:10 – 12:30	Chahrazed Messikh	Exponential decay for a timoshenko problem with fractional time delays.
12:30 – 12:50		
13:00 - 14:00		**Lunch break**
14:00 - 15:00		**Plenary Conference** **Prof. Saber Elaydi** (Trinity University, USA) "A Journey into Global Stability: From Monotone to Mixed Monotone and from autonomous to nonautonomous"
15:00 – 15:20		
15:20 – 15:40		
15:40 – 16:00		

Session: C   (Chaos + Dyn Syst +Fract + Int Equ)

Chairmen: Tidjani Menacer - Houmor Tarek

Hour	Speaker	Presentation Title
10:30 - 10:50	Belattar Meryem	Integrability and solvability of a planar differential system with an algebraic limit cycle
10:50 - 11:10	Saoudi Bilal	Dynamical systems of the p-adic (4,1)-rational functions with two fixed points
11:10 - 11:30	Arab Zineb	Sobolev-Hölder regularity for stochastic non-linear heat equation of fractional order
11:30 - 11:50	Beddani Hamid	An Existence Study for a Tripled System with p-Laplacian Involving Ï†-Caputo Derivatives
11:50 - 12:10	Benguessoum Adel	Some fractional integrals inequalities for h-strongly convex functions
12:10 – 12:30	Samia Ghalia	First-order iterative differential inclusion with almost convex right-hand sides
12:30 – 12:50	Bouziane Aboubaker El-saddik	On the singular Caputo-fractional problem with integral boundary condition
13:00 - 14:00		**Lunch break**
14:00 - 15:00		**Plenary Conference** **Prof. Saber Elaydi** (Trinity University, USA) "A Journey into Global Stability: From Monotone to Mixed Monotone and from autonomous to nonautonomous"
15:00 – 15:20	Amira Rami	Synchronization of a new fractional order system using adaptive control
15:20 – 15:40	Bensimessaoud Soumia	Unified chaotic systems: a compound difference complete synchronization study
15:40 – 16:00	Mechekef Manal	Control of chaotic systems using the ogy method
16:00 -16:20	Salah Seghir Leboukh	Finding the chaos in a fractional chaotic map

Session: D   (Equa Diff + Op Theo+ Num Anal)

Chairmen: Bellour Azzeddine – Hamri Nasreddine

Hour	Speaker	Presentation Title
10:30 - 10:50	Boudjeriou Tahir	On the asymptotic behavior of solutions to fractional parabolic equations in cylinders becoming unbounded
10:50 - 11:10	Benarabi Soumia	Global stability of an si_1 i_2 r rection-diffusion model with bilinear incidence rate
11:10 - 11:30	Benchouk Mayassa	On the Adomian Decomposition Method via Bell Polynpmials of the Second Kind
11:30 - 11:50	Chemseddine Arroud	Necessary conditions for optimality for an evolution diï¬erential inclusions
11:50 - 12:10	Benrabah Sakina	Stabilization of fractional order Liu chaotic system using a sliding mode control strategy
12:10 – 12:30	Rouibah Khaoula	Iterative Collocation Method for fractional Volterra integro-differential equations in the sense of Caputo
12:30 – 12:50	Laouar Zineb	A Highly Accurate Numerical Method Using Compact Combination Basis and Kronecker Product to Solve Partial Differential Equations
13:00 - 14:00		**Lunch break**
14:00 - 15:00		**Plenary Conference** **Prof. Saber Elaydi** (Trinity University, USA) "A Journey into Global Stability: From Monotone to Mixed Monotone and from autonomous to nonautonomous"
15:00 – 15:20	Khennaoui Cheima	Collocation method for Solving Hyperbolic Partial Volterra Integro-Differential Equations: A numerical Study
15:20 – 15:40	Daas Khadidja	Coexistence of chaotic and non-chaotic attractors in a slow-fast system with three species
15:40 – 16:00	Talbi Ibtissem	Efficient Image Encryption Design based on Chaotic Maps

POSTERS

Name	Poster Title
Khaoula aidi	Estimation and tests for new two parameters distribution with right censoring
Gharbi ouahiba	Resolution of a resonance elliptic systems
Kimouche selma	Thin layer quantization method for charged particle on a cone
Hameurlaine meriem	Slepton decay at the large hadron collider
Nabila boufelgha	A limit theorem for boundary local time
Bougherara saliha	Stochastic control problems
Bouzid houari	The existence and uniqueness of solutions for the nonlinear caputo fractional q-differential equations
Bouredji hind	Simple bias correction in nonparametric density estimation for multivariate bounded data

Monday, November 27, 2023:

Plenary Conferences

08:30 - 09:15

Prof. **Pedro Lima** (Instituto Superior Técnico, University of Lisbon, Portugal)

Conference title:

Numerical solution of the stochastic neural field equation and applications to working memory

09:15 – 10:00

Prof. **Ali Moussaoui** (University of Tlemcen, Tlemcen, Algeria)

Conference title:

On some Bioeconomic Models in Fisheries

10:00 - 10:30

Coffee break

Google Meet Link: https://meet.google.com/qkg-ukcm-cqo

Session: **A** **(Control, Opt + Game Theo, Economic + Prob +Stat)**

Chairmen: Zaidi Ali, Mourad Azi

Hour	Speaker	Presentation Title
10:30 - 10:50	Zaidi Ali	A genetics algorithms for optimizing a function over the integer efficient set
10:50 - 11:10	Larbi Asli	Eda algorithm for optimizing function over the efficient set for a multi-objective combinatorial auction problem
11:10 - 11:30	Ouaoua Mohamed Lamine	Comparative study between different variants of fletcher reeves's conjugate gradient method for unconstrained optimization problems
11:30 - 11:50	Mourad Azi	Optimal cash management with free intermediate phase constraints
11:50 - 12:10	Hemici Youcef Elhamam	Comparative numerical study on fletcher-reeves and hestenes-steifel hybridization method
12:10 - 12:30	Saouli Mostapha Abdelouahab	Reflected backward doubly stochachastic differential equations with left continuous and stochastic linear growth generators
12:30 - 12:50	Megraoui Fatima Zohra	Reliability limites of circular consecutive k-out-of- n: g systems
12:50 - 13:30		Lunch break
13:30 - 13:50		
13:50 - 14:10		
14:10 - 14:30		

Session: B   (Math Phys + Int Equ)

Chairmen: **Haouat Salah – Boudjedaa Tahar**

Hour	Speaker	Presentation Title
10:30 - 10:50	Bousafsaf Issam	Solutions of the schrödinger equation extended cornell potential plus modified double ring-shaped potential.
10:50 - 11:10	Madjour Bilel	General stability result for a nonlinear viscoelastic wave equation with boundary dissipation
11:10 - 11:30	Sahraoui Asma	Quasi-exactly solvable schrödinger equation for a generalized cornell potential plus a ring-shaped-like potential
11:30 - 11:50	Ketfi Roufaida	Variational study of a thermo-mechanical problem
11:50 - 12:10	Hafirassou Zineb	Time-frequency analysis associated with the stockwell transform in the hankel setting
12:10 - 12:30	Benzahi Ahlem	On the existence results for fractional-integro differential equations with non-instantaneous impulses
12:30 - 13:30		**Lunch break**
13:30 - 13:50		
13:50 - 14:10		
14:10 - 14:30		

Session: C   (Chaos + Dyn Syst + Fract)

Chairmen: René Lozi - Hamri Nasreddine

Hour	Speaker	Presentation Title
10:30 - 10:50	Benkara Mostefa Mohamed Cherif	Nonlinear dynamics of a generalized differential-algebraic biological economic system with the hybrid functional response
10:50 - 11:10	Diab Zouhair	The number of limit cycles for planar discontinuous generalized kukles systems
11:10 - 11:30	Nasri Abdeslam	Synchronization and stability of a three-dimensional fractional chaotic financial model
11:30 - 11:50	Derbouche Assia	Control of the seasonally forced sir epidemic model
11:50 - 12:10	Allam Asma	Convergence of solutions of a system of recurrence equations
12:10 - 12:30	Bendouma Bouharket	Existence of solutions for nabla conformable fractional problems on time scales
12:30 - 13:30		**Lunch break**
13:30 - 13:50	Redjam Ibtissem	Qualitative analysis of higher-order fuzzy difference equation
13:50 - 14:10	Boucherma Rayane	Vseitr fractional model for tuberculosis in algeria using caputo derivatives
14:10 - 14:30	Azioune Mourad	Complexity analysis and chaos control of a bertrand duopoly game with homogeneous expectations and quadratic cost functions
14:30 – 14:50	Naas Youcef	Approximate viability for fractional differential equation in finite dimensional spaces

Session: D   (Number Theo + Num Anal)

Chairmen: Kechkar Nasserdine - Haiour Mohamed

Hour	Speaker	Presentation Title
10:30 - 10:50	Boudellioua Mohamed Salah	Application of the quillen-suslin theorem to the computation of the smith form of a multivariate polynomial matrix
10:50 - 11:10	Taane Abdelhak	Nested sums involving q-fibonacci numbers
11:10 - 11:30	Hassina Zerroug	The new generating functions of the products of gaussian tetranacci numbers and some gassian number
11:30 - 11:50	Mokhtari Soufyane	Inertia groups of ramified prime ideals of the splitting field of the trinomial xpn + ax + a
11:50 - 12:10	Rezaiguia Lokmane	On the wagstaff prime numbers in k-fibonacci sequences
12:10 - 12:30	Birem Fouzia	An Algorithm for Solving Three-Dimentional Linear Volterra Integral Equation
12:30 - 13:30		Lunch break
13:30 - 13:50	Saidane Sara	An algorithm for solving two dimensional Volterra integral equations with time delay
13:50 - 14:10	Boutiba Malika	Numeric FEM's Solution for Space-Time Diffusion Partial Differential Equations with Caputo-Fabrizio and Riemann-Liouville Fractional Order's Derivative
14:10 - 14:30		

POSTERS

Name	Poster Title
Zaamoune faiza	**Design a bifurcations and hiddin bifurcation in multispiral new chaotic attractor via saturated function series**
Basti bilal	**Forecast and analysis on the spread of covid-19 with fractional operators**
Mihoubi hamza	**Numerical study of natural convection in horizontal centrality annuli using nanofluid**
Benhabiles hanane	**A primal-dual interior-point method for linear programming based on a new kernel function with a trigonometric barrier term**
Bellout aida	**On the dynamic of a new piecewice linear map**
Hammoumi ibtissem	**The existence of mild solution for hilfer impulsive fractional differential inclusions in banach spaces**
Zerari amel	**PAP-GARCH model's L2 structure**
Boustila ranya	**Rate of uniform consistency of a nonparametric estimator of a functional conditional distribution based on right-censored data**

Closing Ceremony

15:00 - 15:30