

Faculté des Sciences
de Sfax



International Conference on Advances in Applied Mathematics



Association Tunisienne de
Mathématiques
Appliquées et Industrielles



Monday, December 19, 2022

08h30: Opening

Conference Room

Chairman: Lotfi Beji

08h45: Azgal Abichou, University of Cergy, CY Tech (France) Contrôle et innovation.

09h30: Carsten Trunk, Technische Universität Ilmenau (Germany) A Jordan-like decomposition for linear relations in finite-dimensional spaces.

10h15: Coffee Break

10h45: Parallel Sessions

Conference Room	Room 1
Chair: Thouraya Kharrat	Chair: Bilel Mefteh
10h45: Imen Ellouze, On the hybride stabilization of nonlinear systems	10h45: RahmaTaktak, Fixed point theorems for multivalued mappings
11h05: Faten Ezzine, Sur la stabilité des systèmes stochastiques singuliers	11h05: Zied Jbeli, Derivations on archimedean f-algebras
11h25: Sahbi Boughattas, Global uniform asymptotic stability of a class of time-varying perturbed systems	11h25: Lamine Guedda, Existence result for a system of fractional order boundary value problems in the resonance case via degree theory
11h45: Khawla Ben Mrad, Seperation principle analysis using new variant of Halanay's inequality	11h45: Rabah Belbaki, On the monotone generalized nonexpansive mappings in Banach spaces for Mann iteration process
Lunch	



Monday, December 19, 2022

Conference Room

Chairman: Azgal Abichou

14h30: Aissa Guesmia, University of Lorraine, Metz (France) Some well-posedness and stability results for thermoelastic Bresse-type systems with different kinds of heat conduction via the vertical displacements.

15h15: Hichem Arioui, University of Evry, Paris-Saclay (France) Assistance aux motards : défis techniques et pistes de solutions.

16h00: Coffee Break and Posters Session

16h30: Parallel Sessions

Conference Room	Room 1
Chair: Mohsen Miraoui	Chair: Chaker Jammazi
16h30: Youssef Khemili , Pseudo asymptotically bloch periodic functions with applications to some semi-linear evolution equations in Banach spaces.	16h30: Djelloul Benzaid , Bethe-Weizsacker semi-empirical mass formula parameters, update based on AME 2020
16h50: Sana Mehrez , On a certain analysis of the generalized marcum Mittag-Leffler function.	16h50: Mohamed Bekiri , Existence of sign-changing solution to critical elliptic problem on compact manifold
17h10: Sonia Missaoui , On the stochastic evolution equation driven by Brownian motion in a separable space	17h10: Abdelkader Kerraci , Intelligent sliding mode control strategies for magnetic levitation system: A comparative study
17h30: Abir Hamdi : Mu-pseudo almost periodic solutions in Lebesgue spaces with variable exponents.	17h30: Ghada Bouamaied , Sur l'observation de quelques systèmes de contrôle
17h50: Marwa Missaoui : Piecewise pseudo almost periodic mild solution with measure for some partial impulsive stochastic neutral evolution equations.	17h50: Mohammed Abdelmalek , Some properties of Newton transformations and applications

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Tuesday, December 20, 2022

Conference Room

Chairman: Aissa Guesmia

08h45: Mohamed Chadli, University of Evry, Paris-Saclay (France) Fault diagnosis for TS systems in finite frequency domain: LMI/SOS approach.

09h30: Ahmed Kebaier, University of Evry, Paris-Saclay (France) Approximation of stochastic Volterra differential equations and applications to finance.

10h15: Coffee Break

10h45: Parallel Sessions

Conference Room	Room 1
Chair: Abdelhalim Azzouz	Chair: Mondher Benjema
10h45: Ines Walha , Some advances on the theory of unbounded operator matrices	10h45: Naziha Belmahi , Stability for fractional dynamical systems: Application to biochemical models
11h05: Mahamed Beghdadi , On generalized essential spectra of 2×2 operator matrices	11h05: Ahmed Abbassi , Root extraction in Arabic mathematics (10 th -15 th century)
11h25: Rabeb Aydi , Measure of non-almost weak noncompactness	11h25: Aida Jrajria , Rescaling method for blow-up solutions of nonlinear wave equations
11h45: Omaima Kchaou , On generalized essential pseudo spectra	11h45: Fatma Jerbi , Contribution to the study of some fractional operators
Lunch	

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Tuesday, December 20, 2022

Conference Room (Online)

Chairman: Carsten Trunk

14h30: Nazife Erkursun Ozcan, Hacettepe University (Turkey) On regular bounded martingale spaces.

15h15: Rosana Rodríguez-López, U. de Santiago de Compostela (Spain) Some results on boundary value problems for a class of nonlinear second-order functional differential equations.

16h00: Coffee Break and Posters Session

16h30: Parallel Sessions

Conference Room	Room 1
Chair: Ines Ellouze	Chair: Faiçal Abdmouleh
16h30: Abdessalem Bouzidi , Stability and stabilization of uncertain nonlinear systems	16h30: Hafida Abbas , Fractional differential equations with integral boundary conditions
16h50: Nadia Benkhattou , Neutral functional sequential differential equations with Caputo fractional derivative on time scales	16h50: Aziza Bachmar , Étude mathématique de quelques problèmes de contact (Part 1)
17h10: Ilham Abi Ayad , Parametric drift estimation for non-recurrent diffusion processes	17h10: Chahira Guenoune , Étude mathématique de quelques problèmes de contact (Part 2)
17h30: Fatma Guesmi , Modelling and control of a crane	17h30: Najeh Tahri , Fonctions pseudo Weyl presque périodiques sur des échelles de temps et application au système (QV-SICNNs)
17h50: Abdelaziz Azeb Ahmed , A quasistatic frictional contact problem for thermo-electro-viscoelastic materials	17h50: Chaima Nefzi : L'étude du problème parabolique de Laplacien fractionnaire

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Wednesday, December 21, 2022

Conference Room

Chairman: Ahmed Kebaier

08h45: Chaker Jammazi, École Polytechnique de Tunis (Tunisia) On the fixed-time stability and stabilization of nonlinear systems: applications to the wave equation under Wentzell boundary conditions.

09h30: Masood Khalique, North-West University (South Africa) Applications of Lie group methods to differential equations.

10h15: Coffee Break

10h45: Parallel Sessions

Conference Room	Room 1
Chair: Raoudha Zine	Chair: Wael Abdelhedi
10h45: Ahmad Zorkot (Online) , A Lagrange-Galerkin method for a class of continuity equations and applications to first order meanfield games	10h45: Baghdadi Aloui , Characterizations of D-classical orthogonal polynomials via raising and lowering operators
11h05: Abdelhalim Azzouz , Further extensions of some Eulerian functions	11h05: Dahia Elhadj , Bilinear asymmetric closed graph theorem
11h25: Lotfi Beji , Motion cueing algorithm parameters optimization for human-simulator interactions in skiing	11h25: Abderrahim Bourhattas , Nonparametric estimation for a tv-NAR process with ARCH-errors under ergodic condition
11h45: Ahlem Zaarat : A new constructive approach to solve semi-infinite linear programming problems	11h45: Salma Zaouaghi , Global stabilization of nonlinear cascade systems with time-varying delays
12h05: Asma Rayhana Dja Daouadji , Analysis of a discretized susceptible-infected epidemic model with conformable fractional order	12h05: Brahim Ziane , T-intuitionistic fuzzy ideals in terms of lattice operations
12h25: Fatima Hadjabi , Cahotic behaviors of novel 3-D discrete fractional system	12h25: Mustapha Fateh Yarou , Second order nonconvex sweeping process
Lunch	



Thursday, December 22, 2022

Conference Room

Chairman: Mohamed Chadli

09h00: Tahar Z. Boulmezaoud, University of Versailles (France) Two surprises in convex analysis.

09h45: Coffee Break

10h15: Parallel Sessions

Conference Room	Room 1
Chair: Abdelaziz Ghribi	Chair: Ines Walha
10h15: Hichem Arioui, Visual-aid effects on novice drivers of powered two-wheeled vehicles on a virtual simulator	10h15: Lazhar Tamer, Partial information maximum principle for optimal control problem with regime switching in the conditional mean-field mode
10h35: Imen Boutouria, On characterizing the exponential, gamma and beta q-distributions	10h35: Soheyb Milles, Several types of neutrosophic ideals and filters on lattice
10h55: Mariem Dhifet, Bounded variation solution to 1-Laplacian Kirchhoff type problem in \mathbb{R}^n	10h55: Fatiha Mesdoui, Synchronization of fractional dynamical systems: Application to chemical models
11h15: Imane Mammar, Prion disease models with pulsed effect	11h15: Tayeb Hadj Kaddour, Global well posedness for effectively damped wave equation with non linear memory
Lunch	



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Posters Session

Ahmed Zeglaoui	On Boyom cohomology of symplectic four dimensional nilpotent Lie algebras.
Hamed Abderrahmane Bouraoui,	Exponential stability for a thermoelastic Bresse system.
Fatima Benziadi	Consistency result of recursive conditional distribution estimate for dependent data under left truncation, with applications to the conditional quantile.
Rim Farhat	Hyperbolic Navier-Stokes equation in two space dimension.
Mariam Ben Salah	Finite -time stabilization of parameter-dependent nonlinear systems.
Mustapha Meghnafi	Existence and multiplicity of solutions for a class of quasilinear boundary value problems.
Houria Meghnafi	Stability of nonlinear differential equations with parameter periodic perturbation.
Khalida Aissani	On Fractional integro-differential equations with state-dependent delay and non-instantaneous impulses.
Imad-Eddine Abbes	Practical exponential stability of nonlinear time-varying systems.
Hichem El Hendi	Harmonic Maps on f- Kenmotsu Manifolds.
Lahbib Lahmar	ARIMA models to temperature data.
Ghaouti Djellouli	Hybrid mathematical model of Leukemic diseases.
Rahma Heni	New characterizations of input-to-state stability of dynamical systems in Banach spaces.
Manel Alaya	A practical separation principle for nonlinear systems.

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Hamzaoui Abdelfattah	Stability and convergence analysis of time-varying nonlinear systems with indefinite derivative.
Grine Razika	Study of stochastic processes.
Abdallah Lallouche	Modeling of some biological and ecological data under Poisson Lindley exponential distributions.
Nawel Mourah	On the stability of the implicit finite difference approximation method for time fractional diffusion equations.
Mohamed El Baa	Analytical modeling of an inductor in a magnetic circuit for pulsed field magnetization of HTS bulks using cartesian coordinate.
Taher Khalifa	Output feedback regulation of a class of stochastic nonlinear system via sampled.