



## THE FIRST NATIONAL SEMINAR ON APPLIED MATHEMATICS (FNSAM'23)

December 15-16, 2023

Faculty of Sciences Dhar El Mahraz (FSDM)

Fez-Morocco

### Planning

Friday 16 December 2023		
Time	Videoconference room/Salle de visioconférence	
09 :00-09 :30	Registration and welcome	
09 :30-10 :00	Opening Ceremony	
10 :00- 11:00	Speaker 1 : Pr. Elhoussine Azroul	Chair : Pr. A. Aberqi
	Title : On some new models of nonlinear systems and Applications to biological problems	
Break		
Session 1 : (Chair :Pr. E. Azroul)		Videoconference room/Salle de visioconférence
11 :30-11 :45	G. Diki	Analytical Solutions and Classification of Vesicle Motion and Deformation in Shear Flow : Uncovering New Tank-Treading Modes
11 :45-12 :00	M. Shimi	Non-negative solutions for a class of nonlocal problems
12 :00-12 :15	M. Sрати	Nonlocal problems with Neumann and Robin boundary condition in fractional Musielak-Sobolev spaces
12 :15-12 :30	M. El Khalifi	SIRS epidemics with individual heterogeneity of immunity waning
Break		

Session 2 : (Chair : Pr. A. Khazari co-chair Pr. M. Elmassoudi ) Optimal control		Room : S5
16 :00-16 :15	A. Ouza	Optimal Modeling In Energy And Hydraulic Systems : Lagrangian Method
16 :15-16 :30	A. Tsouli	Sufficient and necessary conditions for exponential stabilization of distributed second order bilinear systems with varying time delay
16 : 30-16 :45	W. Ghandor	Regional controllability of fractional-order dynamical system with time-varying delays in the state
16 :45-17 :00	A. Ben Moussa	Reinforcement learning in optimization problems
17 :00-17 :15	Z. Ech-chaffani	Controllability of fractional-order neutral evolution equations and optimal control in Banach space
17 :15-17 :30	M. Chqondi	Stabilization for the nonlinear Schrödinger equation,
17 :30-17 :45	A. KHazari	Some Remarks About Gradient Controllability of Semi linear Systems :HUM Approach
17 :45-18 :00	T. Karite	Control problem of variable order fractional systems with Type I Riemann–Liouville derivative
Session 3 : (Chair : Pr. A. Barbara co-chair Pr. M. El Idrissi ) PDEs		Room : S8
16 :00-16 :15	M. Bahadi	Nonlinear singular elliptic problem
16 :15-16 :30	A. Daife	Results for nonlinear parabolic systems via young measure
16 : 30-16 :45	M. El Fatry	Stefan problems with unbounded heat conduction and integrable data
16 :45-17 :00	R. Elarabi	Existence and regularity of capacity solution for a perturbed nonlinear coupled system
17 :00-17 :15	Z. Elhammoumi	Study of a nonlinear stochastic partial differential equation
17 :15-17 :30	Y. Ahakkoud	Existence and uniqueness of weak periodic solutions for a coupled parabolic-elliptic system
17 :30-17 :45	H. Riahi	Asymptotic behavior and existence of solutions for singular elliptic equations
17 :45-18 :00	S. Abaydi	Elliptic Equations With Robin Boundary Conditions: Renormalized Solutions and Numerical Simulation

<b>Session 4 : (Chair : Pr. H. Zguitti Co-chair : Pr. M. Rossafi ) Functional Analysis</b>		<b>Room :S9</b>
16 :00-16 :15	Y. Bamouh	Inverse problem and its application to the heat equation
16 :15-16 :30	A. Ech-Chakouri	On Codiscyclic Linear Relations
16 :30-16 :45	S. Hadji	Further Common Spectral Properties using $v$ -Convergence
16 :45-17 :00	K. El-khalf	Spectral study of Gegenbauer polynomials
17 :00-17 :15	H. Labrigui	Some new results of operator frames for Hilbert $C^*$ -modules
17 :15-17 :30	B. Laghmam	further results of $(b, c)$ -invertibility

## Saturday 16 December 2023

<b>Session 5 (Chair : Pr. O. Elbarrimi co-chair Pr. A. Aberqi ) PDEs:Double phase Operator</b>		<b>Room : S8</b>
09 :30-09 :45	M. Idrissi	Global existence and blow-up of solutions to a nonlocal parabolic equation with singular potential and logarithmic nonlinearity
09 :45-10 :00	B. El Alami	Étude de problème à double phase dans les espaces de sobolev généralisés
10 :00-10 :15	M. Knifda	On a class of double phase problem involving potentials terms
10 :15-10:30	A. Lamane	The Nehari manifold method and applications
10 :30-10 :45	R. Sersif	Infinitely many positive energy solutions for semilinear Neumann equations with critical Sobolev exponent and concave-convex nonlinearity
10 :45-11 :00	O. En-Feur	Renormalised non-negative solutions for the double phase Dirichlet problems with $L^1(W)$ data

Break

<b>Session 6 : (Chair Pr. H. Yazough co-chair Pr. Z. Elmazgouri) Fixed point theory</b>		<b>Room : S9</b>
09 :30-09 :45	M. A. Ighachane	New inequalities for $(p, h)$ -convex functions
09 :45-10 :00	A. Jaid	New types of fixed points and common fixed points in Banach spaces
10 :00-10 :15	Y. Touail	Some fixed point results and an application in dynamic programming
10 :15-10:30	E. Rami	resolution of a nonlinear elliptic problem by adding a $p$ -Laplacian operator weight and right hand measure
10 :30-10 :45	G. Erriahi Elidrissi	Strongly nonlinear periodic parabolic problem in Orlicz spaces

Break

<b>Session 7 ( Chair Pr. Y. Akdim co-chair Pr. M. Mekhour) PDEs : Nonlinear Systems</b>		<b>Room 10</b>
09 :30-09 :45	H. El-Yahyaoui	Existence of solutions for a Class of Elliptic Systems in General Fractional Space
09 :45-10 :00	M. Masmodi	Multiple positive solutions for a fractional $p&q$ -Laplacian system with concave and critical nonlinearities
10 :00-10 :15	A. EL ourdani	On a Neumann Non Linear Evolution Reaction-Diffusion systems in Museilack spaces
10 :15-10:30	A. Ouaziz	Fractional Sobolev Spaces with Kernel Function on Compact Riemannian Manifolds
10 :30-10:45	M. Ouboufettal	Existence of solution for nonlinear elliptic inclusion problems with degenerate coercivity and $L^1$ - data.
10:45-11 :15	A. Sabri	Weak Solution for Nonlinear Fractional $p(\cdot)$ -Laplacian problem with Variable Order via Rothe's Time-Discretization Method

Break

**Seminar room/Salle de séminaire( Department of mathematics)**

<b>11 :45- 12:45</b>	<b>Speaker 2 : Pr. Driss Meskine</b>	<b>Chair : Pr. J. Bennouna</b>
	Title :	
Break		

## Thesis defense

Time : From 15 :00

Doctoral student : **Khadija MOUTAOUAKIL**

Supervisor : **Pr. Jaouad Bennouna**

Thesis co-director : **Pr. Mounir Mekhour**

**Closing ceremony**