

**International E-Conference on Differential Equations and Applications
(IE-CDEA 2021)
24-25 September 2021
Faculty of sciences Dhar El Mahraz, Fez, Morocco
The laboratory of analysis and applied mathematics (LAMA)**

Planning

Day1 : Zoom link :

<https://zoom.us/j/97941830271?pwd=TEFxaVZSbnhUUjhEZmMxZ3ZaZTQ4QT09>

ID de réunion : 979 4183 0271

Code secret : 541633

All times are Moroccan local time (GMT+1)

Time	Friday 24/09/2021	
09h30-10h00	Opening ceremony	
10h00-11h00	Prof. A. Benkirane	
	Dr.	
	Title: Honoring the honorable professor : A. Touzani	
11h00-11h15	Break	
	Speaker: M. Seaid	Chair :J. Bennouna
	Title: On some mathematical models for transport and dispersion in porous media	
	Break	
11h15-12h15	Speaker : A. Nachaoui	Chair : A. Azroul
	Title: Iterative methods for inverse problems subject to the convection-diffusion equation	
12h15-14h30	Break	

Session 1

Google Meet link :

<https://meet.google.com/vdx-kqhz-erp>

Session 1 (EDP1)	Chair : A. Benkirane	Co-chair : A. Aberqi Co-chair : C. Yazough
Google Meet link : https://meet.google.com/vdx-kqhz-erp		
15h00-15h20	MOHAMED LGHAZAL	THE GENERALIZED FUGLEDE'S THEOREM IN MUSIELAK-ORLICZ HARDY SPACE
15h20-15h40	OMAR BENSLIMANE	EXISTENCE RESULTS FOR UNILATERAL ANISOTROPIC PROBLEM DEFINED IN ANISOTROPIC SOBOLEV-ORLICZ SPACE
15h40-16h00	BALAADICH FARAH	QUASILINEAR ELLIPTIC SYSTEMS WITH NONSTANDARD GROWTH
16h00-16h20	HAMMOUMI MOHAMED	UNIQUENESS OF RENORMALIZED SOLUTIONS FOR A CLASS OF PARABOLIC EQUATIONS
16h20-16h40	ABDELLATIF BOUTIARA	SYSTEMS OF GENERALIZED STURM-LIOUVILLE AND LANGEVIN EQUATIONS VIA Ψ -HILFER FRACTIONAL DERIVATIVES WITH BOUNDARY CONDITIONS
16h40-17h00	HAYAT BENKHALOU	EXISTENCE OF RENORMALIZED SOLUTIONS FOR ELLIPTIC PROBLEM WITH NEUMANN BOUNDARY CONDITION
17h00-17h20	AIT HAMMOU MUSTAPHA	NONLINEAR PROBLEM INVOLVING THE FRACTIONAL $P(X)$ -LAPLACIAN OPERATOR BY TOPOLOGICAL DEGREE
17h20-17h40	AZRAIBI OUIDAD	ON SOME NONLINEAR ELLIPTIC PROBLEMS WITH LARGE MONOTONOCITY IN MUSIELAK-ORLICZ-SOBOLEV SPACES

Session 2

Google Meet link :

<https://meet.google.com/jrs-bwqt-hug>

Session 2 Optimization and control theory 1	Chair: A. Nachaoui	Co-chair: A. Khazari Co-chair: M. Baddi
Google Meet link : meet.google.com/jrs-bwqt-hug		
15h00-15h20	ABDELLAH LOURINI	ON THE NULL CONTROLLABILITY OF BOUNDARY CONTROL PROBLEMS
15h20-15h40	M. OUHAFA	ON THE REGIONAL TRACKING PROBLEM FOR THE BILINEAR DAMPING WAVE EQUATION SUBJECT TO BOUNDED CONTROLS
15h40-16h00	LAMRANI ILYASSE	SUPEREXPONENTIAL STABILIZATION OF WEAKLY COUPLED PARABOLIC SYSTEMS
16h00-16h20	AISSAM ICHATOUHANE	OPTIMALITY CONDITIONS FOR NONSMOOTH MULTI-OBJECTIVE INTERVAL-VALUED OPTIMIZATION PROBLEM WITH SEMI-INFINITE CONSTRAINTS VIA CONVEXIFIERS
16h20-16h40	AYOUB SAKKOU	A MATHEMATICAL SIMULATION AND OPTIMAL CONTROL OF A VIH MODEL WITH DIFFERENT INFECTIOUS LEVEL
16h40-17h00	ABDELKARIM AKOUBI	ON THE OUTPUT STABILIZATION OF INFINITE DIMENSIONAL BILINEAR DELAY SYSTEM
17h00-17h20	AGHEDDOU MUSTAPHA	ENLARGED CONTROLLABILITY OF PARABOLIC BILINEAR SYSTEMS
17h20-17h40	AHMED DELBOUH	STRONG STABILISATION FOR DELAYED SEMILINEAR SYSTEMS GOVERNED BY CONSTRAINED FEEDBACK CONTROL
17h40-18h00	ZOUBIDA ECH-CHAFFANI	EXACT CONTROLLABILITY OF CAPUTO FRACTIONAL EVOLUTION EQUATIONS

Session 3

Google Meet link :

<https://meet.google.com/yrv-vjpp-inn>

Session 3 (EDP2)	Chair : A. Touzani	Co-chair : A. Barbara Co-chair : O. El Barrimi
Google Meet link : https://meet.google.com/yrv-vjpp-inn		
15h00-15h20	BADR EL HAJI	STRONGLY NONLINEAR ELLIPTIC PROBLEM WITH MEASURE DATA IN MUSIELAK-ORLICZ SPACES
15h20-15h40	MOHAMMED BELAYACHI	EXISTENCE OF ENTROPY SOLUTIONS FOR SOME NONLINEAR AND NONCOERCIVE UNILATERAL ELLIPTIC PROBLEMS
15h40-16h00	MOULAY CHERIF HASSIB	CAPACITY, THEOREM OF H BREZIS AND F.E. BROWDER TYPE IN WEIGHTED VARIABLE EXPONENT SOBOLEV SPACES AND APPLICATION TO AN UNILATERAL PROBLEM
16h00-16h20	M. EL OUARTY	SOME NONLINEAR PARABOLIC PROBLEMS WITH SINGULAR NATURAL GROWTH TERM
16h20-16h40	MOHAMMED SRATI	ON A NEW FRACTIONAL MUSIELAK-SOBOLEV SPACE AND APPLICATIONS
16h40-17h00	ABDESSLAM OUAZIZ	NONLOCAL ELLIPTIC PROBLEMS ON COMPACT RIMMANNIAN MANIFOLDS
17h00-17h20	NOURDINE ELAMARTY	ON THE EXISTENCE OF ENTROPY SOLUTION FOR THE STRONGLY NONLINEAR UNILATERAL PARABOLIC INEQUALITIES WITH LOWER ORDER TERM
17h20-17h40	ELMASSOUDI MHAMED	EXISTENCE RESULT OF A SOLUTION FOR A NONLINEAR ELLIPTIC-PARABOLIC SYSTEM IN ORLICZ SPACES

Session 4

Google Meet link :

<https://meet.google.com/qpe-huht-oki>

Session 4 Numerical Analysis and Modelling	Chair: M. Seaid	Co-chair : S. Wardi Co-chair : A. Azzouzi
Google Meet link : https://meet.google.com/qpe-huht-oki		
15h00-15h20	LAHCEN EL-OUADEFI	NUMERICAL SIMULATION OF THE BRINKMAN SYSTEM WITH DIFFERENT PERMEABILITY
15h20-15h40	MASROUR MOHAMMED	REGULARITY OF SOLUTIONS TO SOME CLASSES OF LINEAR ELLIPTIC DEGENERATE HIGHER-ORDER OPERATORS
15h40-16h00	ABDELOUAHED ALLA HAMOU	NUMERICAL ANALYSIS OF TIME FRACTIONAL PARABOLIC EQUATIONS WITH INITIAL AND PERIODIC CONDITIONS
16h00-16h20	KHOUYA BASSOU	A SEMI-LAGRANGIAN FINITE ELEMENT METHOD FOR TREE-DIMENSIONAL INCOMPRESSIBLE FLOW PROBLEMS
16h20-16h40	ADNANE GEBLI	AN ADAPTIVE PRIMAL-DUAL MIXED FINITE VOLUME APPROXIMATION FOR ELLIPTIC BOUNDARY-VALUE PROBLEMS WITH DISCONTINUOUS COEFFICIENTS
16h40-17h00	KHADIJA RIZKI	DEEP LEARNING FOR PARTIAL DIFFERENTIAL EQUATIONS
17h00-17h20	ELMEHDI FARAH	MODELLING ANALYSIS HIV-1 AND HIV-2 MODEL WITH DRUG RESISTANCE COMPARTEMENT
17h20-17h40	MUSTAPHA BOUALLALA	A DYNAMIC THERMO-VISCOELASTIC CONTACT PROBLEM WITH NORMAL COMPLIANCE FOR LOCKING MATERIAL
17h40-18h00	YOUSSOUF LAABASSI	A PRIMAL-DUAL MIXED FINITE VOLUME METHOD FOR NUMERICAL SOLUTIONS OF PDES ON DEFORMABLE DOMAINS

Day 2 : Zoom link :

<https://zoom.us/j/97941830271?pwd=TEFxaVZSbnhUUjhEZmMxZ3ZaZTQ4QT09>

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Saturday 25/09/2021		
10h00-11h00	Speaker : M. Adimy	Chair : N. Gadhi
Title: Modelling the relationship between antibody-dependent enhancement and disease severity in secondary dengue infection		
11h00-11h30	Break	
11h30-12h30	Speaker: A. Youssefi	Chair :J. Bennouna
Title: Meyers-Serrin type approximations in Musielak spaces		
12h30-14h30	Break	

Session 1

Google Meet link :

<https://meet.google.com/vdx-kqhz-erp>

<u>Session 1</u> Dynamic systems	Chair : M. Adimy	Co-chair : N. Gadhi Co- Chair : A. Aberqi
Google Meet link : https://meet.google.com/vdx-kqhz-erp		
15h00-15h20	K. CHOKRI	A DYNAMIC MODEL FOR COVID-19 AND OPTIMAL CONTROL STRATEGY
15h20-15h40	MOSTAFA ABAALI	EXISTENCE AND STABILITY OF A STEADY STATE FOR A COUPLED SYSTEM OF ELLIPTIC EQUATION MODELLING THE BIODENITRIFICATION PROCESS
15h40-16h00	MOHAMED ELHIA	OBSERVER DESIGN FOR A CLASS OF NON-LINEAR EPIDEMIC CONTINUOUS MODELS
16h00-16h20	MOURAD EL IDRISSE	NECESSARY AND SUFFICIENT CONDITION FOR PERSISTENCE AND EXTINCTION OF A STOCHASTIC SIRI MODEL WITH A GENERAL TRANSMISSION RATE
16h20-16h40	RACHID OU-AZZOU	REGULATOR PROBLEM FOR LINEAR DISCRETE-TIME DELAY SYSTEMS WITH EQUILIBRIUM ON THE BOUNDARY OF CONTROL DOMAIN CONSTRAINS: NON-SYMMETRICAL CASE
16h40-17h00	FATIMAEZZAHRAE MOUTAHIR	A SIMPLIFIED MATHEMATICAL MODEL FOR NONLINEAR TRANSIENT THERMAL RADIATION IN MATERIALS UNDER PHASE CHANGE
17h00-17h20	AMAL EZZIDANI	THE FLUID LIMIT OF THE MULTICLASS PROCESSOR SHARING TANDEM QUEUE
17h20-17h40	ILHEM GACEM	STABILITY ANALYSIS OF A SIR EPIDEMIC MODEL WITH GENERAL INCIDENCE RATE AND TIME DELAY

Session 2

Google Meet link :

<https://meet.google.com/jrs-bwqt-hug>

<u>Session 2</u> (EDP3)	Chair : A. Youssefi	Co- Chair : K. Benhadouch Co- Chair : Y. Ahmida
Google Meet link : meet.google.com/jrs-bwqt-hug		
15h00-15h20	RACHID ELHARCH	ANISOTROPIC SOBOLEV $C^{\alpha,p}$ - CAPACITY
15h20-15h40	YOUNESS OUBALHAJ	EXISTENCE OF SOLUTIONS FOR A FRACTIONAL $(P(X), Q(X))$ -LAPLACIAN SYSTEM WITH WEIGHT
15h40-16h00	AKHDI ABDESSAMAD	EXISTENCE AND MULTIPLICITY RESULTS FOR A CLASS OF ANISOTROPIC ELLIPTIC EQUATIONS INVOLVING $(P(X); Q(X))$ -LAPLACIAN
16h00-16h20	MOHAMMED ABDELLAOUI	ON THE BEHAVIOUR OF ENTROPY SOLUTIONS FOR A FRACTIONAL P -LAPLACIAN PROBLEM AS T TENDS TO INFINITY
16h20-16h40	EL HOUCINE RAMI	EXISTENCE OF A WEAK SOLUTION $(P(X), Q(X))$ - (N, M) -LAPLACIAN LIKE SYSTEMS IN A SOBOLEV SPACES
16h40-17h00	LMOU HAMID	EXISTANCE RESULT FOR FRACTIONAL LANGEVIN INCLUSION WITH MULTI-POINT BOUNDARY CONDITIONS
17h00-17h20	SAID AIT TEMGHART	ENTROPY SOLUTION FOR A CLASS OF $(P(U); Q(U))$ -LAPLACIAN PROBLEM
17h20-17h40	MOHAMMED EL FATRY	RENORMALIZED SOLUTIONS FOR SOME NONLINEAR ELLIPTIC PROBLEMS

Session 3

Google Meet link :

<https://meet.google.com/yrv-vjpp-inn>

Session 3 Optimization and control theory 2	Chair : E. Azroul	Co- Chair : S. Lalaoui Rhali Co- Chair : M. Ait hammou
Google Meet link : https://meet.google.com/yrv-vjpp-inn		
15h00-15h20	MOURAD CHQONDI	STRONG AND WEAK STABILIZATION OF NON-HOMOGENEOUS SEMI-LINEAR CONTROL SYSTEMS
15h20-15h40	ABDELOUAFI GHAZI	OPTIMALITY CONDITIONS AND DC-DINKELBACH-TYPE ALGORITHM FOR VECTOR FRACTIONAL MATHEMATICAL PROGRAMMING WITH RATIOS OF DIFFERENCE OF CONVEX FUNCTIONS
15h40-16h00	BOUCHRA AZZAOU	EXISTENCE AND UNIQUENESS RESULTS FOR GENERALIZED CAPUTO FRACTIONAL INTEGRO-DIFFERENTIAL EQUATIONS
16h00-16h20	SAFAE EL ALAOU	EXPONENTIAL STABILITY OF A NONLINEAR BEAM
16h20-16h40	SOUFIANE LAACHACHI	SOME RESULTS ON OPERATORS DEFINED BY UN-KB SPACE
16h40-17h00	TALHA IBTISAM	CLOSED FORM SOLUTIONS OF SYSTEM OF DIFFERENCE EQUATIONS ASSOCIATED TO FIBONACCI NUMBERS
17h00-17h20	KAMAL EL FAHRI	ON THE CLASS OF ALMOST ORDER (L) SETS AND APPLICATIONS
17h20-17h40	AFKIR FARID	WEAK COMPACTNESS OF ALMOST L-WEAKLY COMPACT OPERATORS
17h40-18h00	TOURIA KARITE	NOTES ON REGIONAL CONTROL PROBLEM WITH DELAY FOR DIFFUSION SYSTEMS WITH CAPUTO DERIVATIVE

Session 4

Google Meet link :

<https://meet.google.com/qpe-huht-oki>

Session 4 (EDP4)	Chair : S. Wardi	Co-chair : A. Elgourari Co- Chair : M. EL massoudi
Google Meet link : https://meet.google.com/qpe-huht-oki		
15h00-15h20	OUBOUFETTAL MORAD	EXISTENCE OF SOLUTION FOR A GENERAL CLASS OF STRONGLY NONLINEAR ELLIPTIC PROBLEMS HAVING NATURAL GROWTH TERMS AND L^1 DATA
15h20-15h40	MOHAMED BOUZIANI	ON QUASILINEAR ANISOTROPIC ELLIPTIC PROBLEMS WITH WEIGHT INVOLVING SINGULARITIES AND L^1 -DATA
15h40-16h00	SIDI MOHAMED DOURI	NONLINEAR UNILATERAL PARABOLIC PROBLEMS IN MUSIELAK SPACES WITH ONLY THE LOG-HÖLDER CONTINUITY CONDITION
16h00-16h20	MUSTAFA AIT KHELLOU	EXISTENCE OF SOLUTIONS FOR NONLINEAR PARABOLIC EQUATION IN MUSIELAK SPACES WITH ONLY THE LOG-HOLDER CONTINUITY CONDITION
16h20-16h40	M.H.BEN TAHIR	STUDY ON CONFORMABLE FRACTIONAL NEUTRAL EVOLUTION EQUATION WITH DELAY
16h40-17h00	ADEL LACHOURI	EXISTENCE AND UNIQUENESS OF SOLUTIONS FOR NONLINEAR FRACTIONAL RELAXATION DIFFERENTIAL EQUATIONS
17h00-17h20	ABDELLATIF EL JAZOULI	EXISTENCE OF A RENORMALIZED SOLUTION OF THE NONLINEAR ELLIPTIC SYSTEM
17h20-17h40	SOULAIMANE AZNAGUE	A STOCHASTIC SIRI EPIDEMIC MODEL WITH SATURATION INCIDENCE AND LOGISTIC GROWTH
17h40-18h00	ABERQI AHMED	FRACTIONAL $P(x,.)$ - LAPLACIAN PROBLEM WITH INDEFINITE WEIGHTS