### Laboratoire Modélisation Mathématique & Simulation Numérique Université Badji Mokhtar-Annaba

#### MMRE'2024 Workshop Program, November, 4-6 2024

	Monday 04 <sup>th</sup> November	<u>Tuesday 05<sup>th</sup> November</u>	<u>Wednesday 06<sup>th</sup> November</u> Industrial Day
08:00	Registration		9:00-12:00
08:30	Open Ceremony		
09:00 09:45	First Plenary Conference (in person)  Pr. Abdennebi Omrane  UMR EcoFoG, French Guiana University  "Mathematical Study of Some Models in Ecology and Agro Ecology"  Coffee Break and Poster Session 1 Contributed Talks	Fifth Plenary Conference (online)  Pr. Tauber Pierre Clovis  INSERM, Tours- France  "Vector-Valued Medical Image Processing"  Coffee Break and Poster Session 2  Contributed Talks	Presentations (9:00-10:00)  Tarek Khatir  UBM-Annaba  Ahmed Bougherira  Sonelgaz-Annaba  Aymen Hadji, Pharmacy, Batna2  AbdelAli Merah, Pharmacy UBMA  Panel Discussion (10:00-11:30)  Amel Benabda  ENIT-Tunis
	Session 1  Toufik BOUBEHZIZ, Grenoble University Hanifa MOKHTARI, Tizi Ouzou University Aicha KHADIDJA, Nawel KERRICHE, NS of Statistics & Applied Economics, Algiers	Session 3  Bilal BASTI, M'sila University Salah BEN MAHMOUD, M'sila University Djamel ZERROUKI, Tizi Ouzou University	Nouredine Benhamidouche Msila University Salah Bouhouche Inov Industrie 4 Lamri Bouyoucef Ferrovial
11:30	Second Plenary Conference (online)  Pr. Montaz Ali  Witwatersrand University, Johannesburg  "Renewable Energies & Applications"	Sixth Plenary Conference (in person)  Pr. Mohammed Hachama  NHS of Mathematics, Sidi Abdellah, Algiers  "Nonlocal Approaches in Image Processing"	Djamel Cheriet USTHB- Alger Boudjema Radouane Blida University Workshop Closing
12:00	LUNCH	LUNCH	LUNCH
13:30	Third Plenary Conference (online)  Pr. Enrique ZUAZUA  Universität Erlangen-Nürnberg (FAU) Germany  "Control and Machine Learning"	Contributed Talks Session 4  Faris AISSAOUI, C.U. de Mila Sabrina BEN HANACHI, SoukAhras Univ. Mohamed LACHACHE, LAM <sup>2</sup> SIN-UBMA Abdelkrim ATAILIA, LAM <sup>2</sup> SIN-UBMA	
14:15	Contributed Talks Session 2  Chiheb Eddine OUALHA, LAM <sup>2</sup> SIN-UBMA Nesrine GOURI, LAM <sup>2</sup> SIN-UBM-Annaba Meriem BOUSSEBHA, LAM <sup>2</sup> SIN-UBM-Annaba Kahina BEDOUHENE, Tizi Ouzou University	Seventh Plenary Conference (online  Pr. A. Nicola DI TEODORO COTUA  College of Sc. and Engineering, Ecuador  "Two-Sided Fractional Monogenic Functions"	
16:00	Fourth Plenary Conference (online)  Pr. Anotida MADZVAMUSE  British Columbia University, Canada  "Analysis and Simulations of Bulk-Surface Reaction-Diffusion systems, Cell Motility Applications"	Eighth Plenary Conference (online)  Dr. Jorge HONLES  National Cancer Institute, Lima, Peru  "Modeling Pesticide Pollution Risk at a Small Geographic Scale and Relationship with Human Health: case of Peru"	

**Location:** the workshop work will take place in SIDI AMAR, Amphi Guellati

## **Oral Presentations**

Speaker and Institution	Presentation Title	
TOUFIK BOUBEHZIZ, Grenoble University	A Dynamic Reduced Order Model for a liquid-core capsule in flow simulation	
SABRINA BEN HANACHI, SoukAhras University	A New Class of Optimization Methods based on Coefficient Conjugate Gradient	
MERIEM BOUSSEBHA, LAM²SIN-UBMA	A Study of a three dimensional coupled reaction diffusion model for tumor growth	
HANIFA MOKHTARI, Tizi Ouzou University.	Asymptotic analysis of the effect of a thin layer on the deformation of a Kirchhoff-Love plate with # thickness	
BILAL BASTI, M'sila University	Harnessing Fractional Operators for Epidemic Management: Mathematical Perspectives	
ABDELKRIM ATAILIA, LAM2SIN-UBM-Annaba	Modeling and Well-Posedness of a Two-Surface Contact Problem in Contact Mechanics	
AICHA KHADIDJA, Tlemcen Univ	Modeling the life cycle dynamics of the European Grapevine moth using a juvenile-adult population approach	
CHIHEB EDDINE OUALHA, LAM²SIN-UBMA	Multi-Task Convolutional Neural Networks for Damage Prediction on Solar Panels	
SALAH BEN MAHMOUD, M'sila University	New characterizations of variable Besov Spaces	
NAWEL KERRICHE, National School of Statistics and Applied Economics	Scenarios Analysis of Natural Gas demand in Algeria and possible impact on exported volumes	Γ
KAHINA BEDOUHENE, Tizi Ouzou University	Semi parametric Estimation by Circular VON MISES KERNEL	
NESRINE GOURI, LAM²SIN-UBMA	The vibration Monitoring and fault Diagnosis of Rotating Machines	Γ
Mohamed LACHACHE, LAM <sup>2</sup> SIN-UBM-Annaba	Theoretical and Numerical Results for the 2-D Regularized Saint-Venant system Coupled with the T-Eq.	
Faris AISSAOUI, C.U. de Mila	WLS estimator for tvAR(p) processes.	Γ
DJAMEL ZERROUKI, Tizi Ouzou University	Improved quadratic convex under estimator for univariate non convex functions	

### **Posters**

Poster Session 1	Poster Session 2
Mohamed KOUADRIA, Generalized Beta-new XLindley distribution:  Mathematical properties and application in medicine	Adel DELIOU, Study of the efficiency of a solar still
Radhia HALILOU, Mathematical Study of Stochastic Partial Differential Equation	Bahia HADJ ALI, Luenberger Observer-Based Control for Solar Trackers
Hanane LAKIKZA, Numerical Results for nonlinear interface problem Modeled a biofilm growth model	Rabah NEBBATI, Modeling of a double-tube, counter-current heat exchanger Using the "al2o3+water" Nanofluid
Lina DOUDI, Enhanced Power Flow Management in Renewable Hybrid Energy Systems	Abir CHOUCHE, Performance Analysis of Magnetic Materials in PMSMs
Mebarka BAYOUD, The ability of bio-inspired methods in finding the Maximum power point in a non-basic shading case	Soumaya DJEKRIF, Enhancement of GAZ Production, Optimization Techniques
Naim BOUDJELIDA, Exploring the Squared Xlindley Distribution: enhanced statistical modeling and estimation techniques with application to covid-19 data	Mohamed Cherif BELLILI, Stability and Bifurcation Analysis in Discrete-time Sirs Model based on covid-19 data from Algeria
Ouafa AMIRA, an Improved Weighted Routing for Napsule Network	

# **Industrial Presentations**

- 1- Artificial Intelligence and Applications, T. Khadir & A. Boughrira
- 2- New Advances in Pharmacolgy, A. Merah & A. Hadji