First International Itinerant Congress on Advanced Mathematics IICAM'2025

"Analysis, Modeling, and Applied Mathematics"

Faculty of Sciences and Thecnics, Moulay Ismaïl University

Errachidia, October 23-25, 2025

Detailed schedule of the IICAM'2025 Congress

Timing: GMT+1	***Thursday October 23rd, 2025***			**Local**
08h30 – 09h30	Reception of participants and Registration			Targa Cultural Center - Errachidia (Centre Culturel de Targa - Errachidia)
09h30 – 10h30	Opening Ceremony			
10h30 – 11h00	Welcome Party (Coffee Break)			
11h00 – 11h45	Plenary Session 1 : ***Enhancing mathematical models for phosphate transport by machine learning*** *MOHAMMED SEAID* *University of Durham, United Kingdom ; University Mohammed VI Polytechnic, Morocco* Session Chairs : Mouhcine Tilioua (FST, UMI, Morocco) / Moha Hajar (FST, UMI, Morocco)			
11h45 – 12h30	Plenary Session 2 : ***Novel theoretical and numerical advances in the field of fractional calculus with applications to life and social sciences*** *KHALID HATTAF* *The Regional Center for Education and Training Professions (CRMEF, Casablanca), Morocco* Session Chairs : El Hassan El Kinani (FS, UMI, Morocco) / Moulay Rchid Sidi Ammi (FST, UMI, Morocco)			
13h00 – 15h00	LUNCH			
Parallel Sessions	Session 1 Mathematics Seminar Room Chairs : M. Ait Khellou / M. Moumni	Session 2 Computer Department Seminar Room Chairs : Y. El Hadfi / O. Oubbih	Session 3 (online) Physics Seminar Room Chairs : S. Boulmane / A. Hafidi	Faculty of Sciences and Thecnics Errachidia (Faculté des Sciences et Techniques Errachidia)
15h30 – 15h45	**M. Bahadi** : Existence of solutions for nonlinear elliptic singular inclusion problems with variable exponents	**S. Ben Aadi**: Equilibrium problems with trifunctions and applications to hemivariational inequalities	**K. Said**: Financialization of Commodity Markets: Copula-Based Extreme Dependence Analysis	
15h45 – 16h00	**A. Madani** : On the Existence, Uniqueness, and Stability of Solutions for a Fractional-Order Lorenz 1984 Model Using the ABC Operator	**H. Oulghazi**: A Deep Learning Approach to Mean Variance Portfolio Optimization with Jump Diffusion Models	**S. Aznague**: Asymptotic behavior of a stochastic hybrid epidemic model with vaccination and quarantine	
16h00 – 16h15	**H. Aboubker**: A nonlocal Kirchhoff $p(x)$-Biharmonic problem involving $q(x)$-Hardy term	**H. Aghdaoui** : Fractional Physics Informed Neural Networks for solving fractional epidemiological models	**M. Baroudi**: Modeling Nipah virus dynamics and designing optimal control strategies	
16h15 – 16h30	**R. Askayouit** : Parabolic variational inequalities without sign condition in inhomogeneous Orlicz–Sobolev spaces, with gradient constraints	**S. Chakir** : Numerical Investigation of Singularity Formation in a Chemotaxis Models via Characteristic Finite Elements	**N. Bouzeggaoui**: Actuarial Projections for Morocco's Mandatory Health Insurance Reform: A Probabilistic Modeling Approach	
16h30 – 16h45	**M. Halimi** : A Dirichlet problem involving a double phase operator with degenerate coercivity	**L. Baouch**: Global Stability and Optimal Control in a Model of Pancreatic Cancer with Risk Factors	**O. Chakir**: Modeling spatial malware propagation in IoT networks with a partial differential equation and Physics-Informed Neural Networks	
16h45 – 17h00	**H. Jourhmane** : Non negative solutions for a variable exponent parabolic problem via the topological degree method	**M. Hamchichi**: A Review of Deep Learning Based Methods for Stochastic Control	**B. Daoudi**: Advancements in Quantitative Data Analysis Technique through the Integration of Fuzzy Logic	
17h00 – 17h15	**S. Maarir** : Interpolation Inequalities in Various Function Spaces	**H. Ouhraichou**: Numerical solution of the Landau-Lifshitz-Gilbert equation via Chebyshev pseudo-spectral method	**S. Darmoun**: Heights and perfect codes	
17h15 – 17h30	**A. Yassir** : Existence of Weak Solutions via Topological Degree for (p(x), q(x))-Laplacian-like Systems	**A. GHAFARI** : Fuzzy fractionnal generalized Bagley-Torvik equation with fuzzy ψ-Caputo gH-differentiability	**R. Hakimi**: Mathematical programming for class imbalance: A cost-sensitive framework for P2P credit Assessment	

Timing: GMT+1	Friday October 24th, 2025				Local
08h30 – 09h30	Registration				Targa Cultural Center - Errachidia (Centre Culturel de Targa - Errachidia)
09h30 – 10h15	Plenary Session 3 : ***Fractional differential equations with the general fractional derivatives with the Sonin kernels*** *YURI LUCHKO* *Berlin University of Applied Sciences and Technology, Germany* Session Chairs : Abderrahim Azouani (ENSAK, USMS, Morocco) / Khalid Hattaf (CRMEF, Casablanca, Morocco)				
10h15 – 10h45	Coffee Break				
10h45 – 11h30	Plenary Session 4 : ***Modelling space inhomogeneity: Challenges and recent advances*** *IWONA CHLEBICKA* *University of Warsaw, Poland* Session Chair : Piotr Gwiazda (Polish Academy of Sciences, Poland) / Mohammed Seaid (University of Durham, United Kingdom)				
11h30 – 12h15	Plenary Session 5 : ***Recent Advances in Matrix Inequalities: Progress and Problems*** *MOHAMMAD SABABHEH* *Abdullah Al Salem University, Kuwait ; Princess Sumaya University for Technology, Jordan* Session Chairs : Moulay Rchid Sidi Ammi (FST, UMI, Morocco) / El Hassan El Kinani (FS, UMI, Morocco)				
13h00 – 15h00	LUNCH				
Parallel Sessions	Session 4 Mathematics Seminar Room Chairs : M. El Moumni / A. Lamrani Alaoui	Session 5 Computer Department Seminar Room Chairs : M. Hammoumi / M. Moumni	Session 6 (online) Physics Seminar Room Chairs : H. Oulghazi / A. Sbai	Session 7 (online) Biology Seminar Room Chairs : A. Hafidi / M. D. Morchid Alaoui	Faculty of Sciences and Thecnics Errachidia (Faculté des Sciences et Techniques Errachidia)
15h30 – 15h45	**S. El Madrari**: The Pólya groups of some real biquadratic fields $K=\mathbb{Q}(\sqrt{lm_1}, \sqrt{lm_2})$	**O. Abad** : Spectral inclusions of C_0-semigroups and closed generalized Drazin-R invertible operators	**A. Ahmed** : Infitely Many Solutions for a Neumann Problem Driven by a Double Phase Kirchhof *(p(·), q(·))*-Laplacian-like Operator	**A. Az-edine**: Renormalized Solutions for Fractional Elliptic Equations with Measure Data	
15h45 – 16h00	**A. Addadi**: Information Geometry for Channel Capacity	**F. Bahou**: Deep Learning Approaches to Current-Induced Magnetization Dynamics for the Landau-Lifshitz Equation	**K. Bouh** : Positive solutions for a subcritical approximate of the scalar curvature problem on the half sphere	**C. Chamakh**: Deep Learning for automatic Polyp segmentation in Colonoscopy images	
16h00 – 16h15	**A. Aloui**: Information criteria for order estimation of multivariate mixture regression models	**H. Bencheikh**: Solving a non-local problem involving the *p*-Laplacian in a fractional Sobolev space of Orlicz type via the Leray-Schauder theorem	**M. Abderrahim** : Existence of infinitely many solutions of discrete anisotropic equations	**A. Bousmaha**: On a nonlocal problem in unbounded domains	
16h15 – 16h30	**B. Aouijil**: Quantum and *LCD* codes derived from the Ring *E*	**A. Dahni**: Maxwellian Equation and Classification of Symmetries	**K. Chabla**: On a *p(x)*-Laplacian problem with nonlocal boundary conditions	**I. Dakir**: Hybrid efficient Net-ML framework for MRI-based brain tumor classification	
16h30 – 16h45	**D. Bourzik**: Nonlinear Regression Model with Correlated Errors	**H. Farjil** : Existence and uniqueness analysis for nonlinear diffusion equations involving Perona-Malik and Leray-Lions operators in L^p spaces	**F. Chaibi** : Uniqueness, regularity and behavior in time of the solutions to nonlinear anisotropic parabolic equations	**A. Khriss**: Solving the capacitated *p*-Median problem with *k*-Medoids clustering and optimal transport	
16h45 – 17h00	**F. Khattari**: Enhancing Image Recognition with CapsResNet: A Hybrid Model Integrating CNNs, Residual Blocks, and Capsule Layers	**I. Haddani** : Nonlinear parabolic problems with measure data in $L^{p(x)}$ involving two lower order terms	**R. Elhamdaoui**: On the existence of the solutions of some elliptic and parabolic problems	**C. Moutalibi**: Optimal Control of a Fractional-Order Host–Parasite Model	
17h00 – 17h15	**M. Ouyahia**: Sharp Interpolation Inequalities and the Spectral Analysis of the Laguerre Semigroup	**H. Kharro** : Optimal parameter identification in the nonlinear PDE framework for image denoising	**T. Moualli**: Existence of mild solutions for conformable fractional evolution equations with nondense domains	**A. Ouzmmou** : Well-posedness of 2D Muskat Equation with Initial Data in Different Lebesgue Spaces	
17h15 – 17h30		**B. L'kaihal**: Mathematical Study of a Thermo-Viscoelastic Contact Problem Involving a Hemivariational Inequality	**M. Ould Mounti** : A Laplace transform approach for solving Fuzzy fractional differential equations under ψ-Caputo gH-Differentiability	**H. Riahi**: On nonlinear degenerate weighted Kirchhoff-Type *p(u)*-Laplacian problems with L^∞ Data	
17h30 – 17h45				**B. Zouaoui**: Hybrid TinyViT-BioGPT architecture for medical image classification	

Timing: GMT+1	*Saturday October 25th, 2025*	Local
08h30 – 09h30	Registration	Targa Cultural Center - Errachidia (Centre Culturel de Targa - Errachidia)
09h30 – 09h15	Plenary Session 6 : ***Comprehensive convergence analysis for the Adam optimizer*** *ARNULF JENTZEN* *The Chinese University of Hong Kong, Shenzhen (CUHK-Shenzhen), China ; University of Münster, Germany* Session Chairs : Khalid Hattaf (CRMEF, Casablanca, Morocco) / Mustapha Sarih (FS, UMI, Morocco)	
10h15 – 10h45	Coffee Break	
10h45 – 11h30	Plenary Session 7 : ***Continuous data assimilation for the equation arising as a singular limit of fast rotating 3-d compressible viscous fluid*** *PIOTR GWIAZDA* *Polish Academy of Sciences, Poland* Session Chair : Mohammed Seaid (University of Durham, United Kingdom) / Abderrahim Azouani (ENSAK, USMS, Morocco)	
11h30 – 12h15	Plenary Session 8 : ***Mean oscillation conditions for nonlinear equation and regularity results*** *PETER ALEXANDER HÄSTÖ* *University of Helsinki, Finland* Session Chair : Iwona Chlebicka (University of Warsaw, Poland) / El Hassan El Kinani (FS, UMI, Morocco)	
12h15 – 12h45	Certificates + Closure Ceremony	
13h00 – 15h00	LUNCH	
Social event (*) *Excursion and Gala Dinner in Merzouga*		

(*) Not included in the registration fee and scheduled for Saturday, October 25 (afternoon) to Sunday, October 26 (morning).