

# IC2MAI'25 Program

IC2MAI'25-FST-Mohammedia : <https://cimaia.sciencesconf.org/>

PC : Plenary conference	S : Session
S 1 : Simulation and Modeling for Physical approaches	S 2 : Advanced Models in Image Processing
S 3 : Theoretical Modeling and Analysis	S 4 : Statistical Learning and Methaheuristic
S 5 : Machine Learning and its Real-World Applications	S 6 : Modeling and Analysis of Natural Phenomena

## Thursday June 19, 2025

8h30-9h00	Registration					
9h00-9h15	Welcome and Opening Ceremony					
09h15-10h00	Plenary conference: M. BENDAHMANE				<i>Chairman : N. MOUSSAID</i>	
10h00-10h45	Plenary conference : N. ALAA				<i>Chairman : A. BEN-LOGHFYRY</i>	
10h45-11h30	Plenary conference : B. ABOU EL MAJD				<i>Chairman : K. ALLALI</i>	
11h30-12h00	Coffee Break					
12h00-14h30	Sessions					
	S 1 : Salle GMI2 Chairs : B. ABOU EL MAJD, M. EL KHLIFI, and A. TIMESLI	S 2 : Salle GMI3 Chairs : A.BEN-LOGHFYRY O.GOUASNOUANE, and M. ZIANI	S 3 : Salle IDISI1 Chairs : M. KABIL, Y. EL YAZIDI, A. EL ADRAOUI, And S. LAZAIZ	S 4 : Salle MIPDEUST Chairs : H. CHAMLAL, H. LAKHBAB and A. BELMAATI	S 5 : Salle SDID Chairs : S. EL MOUMEN, A.KAMOISS , and T.OUADERHMAN	S 6 : Salle IDSI1 Chairs : A.TAIK, K. ALLALI, and N. MOUSSAID

<b>12h00-12h15</b>	<b>Y. ROUKAIBI</b>	<b>F-E. SALAH</b>	<b>Z. FATTAH</b>	<b>K. BENOMAR</b>	<b>K. MOUHAYEN</b>	<b>R. AITBELALE</b>
<b>12h15-12h30</b>	<b>R. ELKADMIRI</b>	<b>J. ATTMANI</b>	<b>M. EZZEROUAL</b>	<b>M. BENHAFID</b>	<b>M. MANSOUHI</b>	<b>H. LEFRAICH</b>
<b>12h30-12h45</b>	<b>S. HASSOUNA</b>	<b>F. BENDAIDA</b>	<b>A. EL BARAYMI</b>	<b>S. BOUAMIRA</b>	<b>I. MOUANGUI</b>	<b>M. LAKHSSASSI</b>
<b>12h45-13h00</b>	<b>M. JANANAE ALLAH</b>	<b>H. REGRAGUI</b>	<b>M. DAHMAN</b>	<b>M. MESKAOUI</b>	<b>F. EDDAOUDI</b>	<b>I. ELKORAICHI</b>
<b>13h00-13h15</b>	<b>Y. BOUCHAOUATA</b>	<b>M.A. MIMOUNI</b>	<b>A. HAMMIA</b>	<b>C. ELOKRI</b>	<b>G. HEIDER</b>	<b>M. CHAGDAL</b>
<b>13h15-13h30</b>	<b>A SERRAR</b>	<b>W. EL AFARI</b>	<b>M. OULABES</b>	<b>F.Z. AHSOUS</b>	<b>S. CHAFI</b>	<b>A. CHIBOUB</b>
<b>13h30-13h45</b>	<b>A. OUAHLA</b>	<b>A. NOKRANE</b>	<b>A. ELAASSRI</b>	<b>A. AMARIR</b>	<b>M. GANMATI</b>	<b>M. ELHACHEMY</b>
<b>13h45-14h00</b>	<b>M. KARDOUDI</b>	<b>F.Z. SEMMANE</b>	<b>O. BONOUALI</b>	<b>N. GHAZLI</b>	<b>A. GOUZI</b>	<b>F. SNIBA</b>
<b>14h00-14h15</b>	<b>A. EL OMARI</b>	<b>K. LEHRIZI</b>	<b>M. MAHBOUBI</b>	<b>M. TOUAOUSSA</b>	<b>S. MOUSSATEN</b>	<b>M. EL BADAOUI</b>
<b>14h15-14h30</b>	<b>R. FOUZI</b>	<b>R. ADDOUCH</b>	<b>I. SOUKTANI</b>	<b>A. SGHIR</b>	<b>M. JANATI</b>	<b>M. EL HATHOUT</b>
<b>14h30</b>	<b>Lunch Break</b>					

### ***The explicit program :***

PC	Plenary conference	
PC	Stochastic Electromechanical Bidomain Model in Electrocardiology.	Mostafa BENDAHMANE
PC	On a fractional reaction-diffusion system applied to image restoration and enhancement.	Noureddine ALAA
PC	De la Science à l'Impact : Valoriser la Recherche par l'Innovation - Retour d'expérience autour de My MDO.	Badr ABOU ELMAJD
S	Sessions	
S 1	<b>Simulation and Modeling for Physical approaches</b>	<i>Organizers: Badr ABOU EL MAJD, Mohamed EL KHLIFI , and Abdelaziz TIMESLI</i>
S 1 -1	Nonlinear buckling and post-buckling behavior of FGM plates based on FSDT Theory	Yahya ROUKAIBI , Mohamed JANANAE ALLAH and Abdelaziz TIMESLI
S 1 -2	Finite Element-Meshless coupling for analyzing inhomogeneous structures under small and large deformations	Redouane ELKADMIRI, Youssef BELAASILIA and Abdelaziz TIMESLI
S 1 -3	New Approach of domain decomposition based on Schur technique	Saad HASSOUNA, Abdelaziz TIMESLI and Abderrazak RAMADANE
S 1 -4	Analysis of free and forced vibrations of FGM plates using an optimization methodology combining artificial intelligence and third-order shear deformation theory	Mohamed JANANAE ALLAH, Saad HASSOUNA, Badr ABOU EL MAJD and Abdelaziz TIMESLI
S 1 -5	An analytical approach to stability analysis of porous functionally graded skew plates using a new higher-order trigonometric shear deformation theory	Youssef BOUCHAOUATA, Saad HASSOUNA and Abdelaziz TIMESLI
S 1 -6	Flow Separation Control on a Ramp Using the Coanda Effect	Abderrahime SERRAR, M. EL KHLIFI and A. KOURTA
S 1 -7	Numerical modeling of cavitated and textured squeeze films	Abdelhamid OUAHLA, Mohamed NABHANI, Said SOBHI, and Mohamed EL KHLIFI
S 1 -8	Numerical comparison of infinite and finite MHD bearings	Mohammed KARDOUDI, Mohamed NABHANI and Mohamed EL KHLIFI
S 1 -9	Stiefel manifold interpolation method for adapting parameterized data and application to fluid dynamics	Achraf EL OMARI, Mohamed EL KHLIFI and Laurent CORDIER
S 1 -10	Numerical analysis of the elastic buckling of functionally graded porous beams	Redouane FOUZI and Khadija MHADA

<b>S2</b>	<b>Advanced Models in Image Processing</b>	<i>Organizers : Anouar BEN-LOGHFYRY, Omar GOUASNOUANE and Mohammed ZIANI</i>
S2- 1	Image Deblurring via Nash Equilibrium and Fractional-Order Derivatives	<b>Fatima-Ezzahrae SALAH</b> and Nouredine MOUSSAID
S2- 2	A Novel Model Based on a Nonlinear Fractional System for Image Restoration	<b>Jamal ATTMANI</b> , Abdelghafour ATLAS and Fahd KARAMI
S2- 3	A nonlocal fourth-order model for image denoising	<b>Fatiha BENDAIDA</b> , Fahd KARAMI and Driss MESKINE
S2- 4	Blind Deconvolution on Grayscale Images via Game Theory and CNNs	<b>Hind REGRAGUI</b> , Mohammed ZIANI and Nouredine MOUSSAID
S2- 5	Restauration d'Images par Réseaux de Neurones Profonds - Une approche variationnelle	<b>Mohamed Amine MIMOUNI</b>
S2- 6	Evaluating state-of-the-art deep learning models for brain tumor segmentation in MRI scans	<b>Walid EL AFARI</b>
S2- 7	Nonlinear hyperbolic-parabolic equations with variable exponents: Application to image decomposition	<b>Ahmed NOKRANE</b> , Nour Eddine ALAA, Mostafa BENDAHMANE, and Fatima AQEL
S2- 8	Enhancing blind deconvolution through bilateral total variation and fractional order derivatives	<b>Fatima Zahra SEMMANE</b> , Mohammed ZIANI and Nouredine MOUSSAID
S2- 9	Image denoising via optimal control of the diffusivity function in the Perona-Malik model	<b>Kawtar LEHRIZI</b> , Omar GOUASNOUANE, Anouar BEN-LOGHFYRY and Nouredine MOUSSAID
S2- 10	Edge detection and noise removal based on non local operator via Nash game equilibrium	<b>Requia ADDOUCH</b> , Nouredine MOUSSAID, Omar GOUASNOUANE and Anouar BEN-LOGHFYRY
<b>S3</b>	<b>Theoretical Modeling and Analysis</b>	<i>Organizers: Mustapha KABIL, Youness EL YAZIDI, Abderrahim EL ADRAOUI and Samih LAZAIZ</i>
S3- 1	Some Geometric Inequalities	<b>Zakaria FATTAH</b>
S3- 2	Parabolic Equations With Singular Terms	<b>Meriem EZZEROUAL</b> and Mostafa EL MOUMNI
S3- 3	On the first eigenvalue of the p-Laplacian with Robin boundary conditions	<b>Abdelaziz EL BARAYMI</b> , Youness EL YAZIDI and Bouchaib FERRAHI
S3- 4	Some Fixed Point Results for Generalized Hardy–Rogers Type $\alpha$ -F-Contractions	<b>Mohammed DAHMAN</b> , Mustapha KABIL and Abdessamad KAMOUISS
S3- 5	FIXED POINTS OF RANDOM F-CONTRACTIONS IN SUPRAMETRIC SPACES	<b>Azzeddine HAMMIA</b> , K.CHAIRA, M. KABIL and S. LAZAIZ
S3- 6	A Fixed Point Theorem for $G_f$ -Kannan Contractive Mappings in Generalized Suprametric Spaces with a Digraph	<b>Mouad OULABES</b> , Karim CHAIRA, Mustapha KABIL and Samih LAZAIZ
S3- 7	Parabolic periodic problem with nonlinear boundary conditions	<b>Abdelwahab ELAASSRI</b> and Hamza ALAA
S3- 8	Numerical Simulation of a classe of nonlinear periodic differential systems by FNO	<b>Oumaima BONOUALI</b> and Hamza ALAA

S3- 9	A fixed point result in Menger b-suprametric spaces	<b>Mohammed MAHBOUBI</b> , CHAIRA karim and KABIL mustapha
S3- 10	On the spectra of two-graphs	<b>Imane SOUKTANI</b> , Abderrahim BOUSSAÏRIB and Mohamed ZOUAGUI

<b>S4</b>	<b>Statistical Learning and Methaheuristic</b>	<i>Organizers: Hasna CHAMLAL, Halima CHAMLAL and Aziza BELMAATI</i>
S4- 1	Human Action Recognition with Features Optimization	<b>Kaoutar BENOMAR</b> , OUARTASSI Bajil and OUACHTOUK Ilias
S4- 2	Contribution to Supply Chain Modeling and the Integration of Industry 4.0 Technologies	<b>Meriem BENHAFID</b> and AKHIATE Aziz
S4- 3	A novel hybrid approach for feature selection in high-dimensional datasets	<b>Safaa BOUAMIRA</b> , Hasna CHAMLAL and Tayeb OUADERAHMAN
S4- 4	Information Theory in Multi-Label Feature Selection: An Analytical Review	<b>Mouhsin MESKAOUI</b> , CHAMLAL Hasna and OUADERHMAN Tayeb
S4- 5	A metaheuristic approach to uncertainty estimation	<b>Chourouk ELOKRI</b> , Tayeb OUADERHMANE and Hasna CHAMLAL
S4- 6	High-Dimensional Lp-Quantile Regression Framework for Robust and Sensitive Variable Selection	<b>Fatima Zahra AHSOUS</b> , Hasna CHAMLAL and Karim OULKACHA
S4- 7	Edge Detection by Artificial Intelligence	<b>Amina AMARIR</b> and Nour Eddine ALAA
S4- 8	Optimizing Image Retrieval through the Integration of Deep Learning and Pareto Front Theory	<b>Nassima GHAZLI</b> , Nouredine MOUSSAID, Omar GOUASNOUANE and Anouar BEN-LOGHFYRY
S4- 9	Robust Image Retrieval via Multi-Axis MLP-Based Denoising	<b>Mohammed TOUAOUSSA</b> , Nouredine MOUSSAID, Omar GOUASNOUANE and Anouar BEN-LOGHFYRY
S4- 10	A Data-Driven Fusion of Deep Learning and Transfer Learning for Orange Disease Classification	<b>Amal SGHIR</b> and Mohammed ZIANI
<b>S5</b>	<b>Machine Learning and its Real-World Applications</b>	<i>Organizers: Samira EL MOUMEN, Abdessamad KAMOUISS and Tayeb OUADERHMAN</i>
S5-1	Comprehensive Learning Crow Search Algorithm for Global Optimization	<b>Kaoutar MOUHAYEN</b> , EL MOUMEN Samira and LAKHBAB Halima
S5-2	A Nash Game-Theoretic Approach for Parallel Multi-Query Image Retrieval Using Deep Visual Features	<b>Meriem MANSOUHI</b> , Samira EL MOUMEN and Nouredine MOUSSAID
S5-3	Simulated Annealing Algorithm for the Permutation Flow Shop Problem: A Comparative Study of Neighborhood Operators	<b>Imane MOUANGUI</b> , Samira EL MOUMEN and Mohamed NAIMI
S5-4	A Simulated Annealing-Embedded Neural Network for Solving the Traveling Salesman Problem	<b>Fakhita EDDAOUDI</b> , Nouhaila ADIL, Halima LAKHBAB and Mohamed NAIMI
S5-5	Algebraic Firefly algorithm for Traveling Salesman problem	<b>Ghazouani HEIDER</b> , Halima LAKHBAB and Nouhaila ADIL

S5-6	Text2Profile: Automatic Generation of Candidate Profiles from Unstructured CVs using Attention-Based NLP Models	<b>Soumia CHAFI</b> , KABIL Mustapha and KAMOUISS Abdessamad
S5-7	Biclustering Algorithm for Heterogeneous Datasets	<b>Meriem GANMATI</b> , CHAMLAL Hasna, OUADERHMAN Tayeb
S5-8	Improved Gaining-Sharing Knowledge-Based Algorithm for solving Global Optimization Problems	<b>Asmaa GOUZI</b> , S. OUHIMMOUA and S. ELMOUMEN
S5-9	On the Limit Theorems for a Class of Non-Stationary Stochastic Processes	<b>Soufiane MOUSSATEN</b>
S5-10	Nonlinear Vibration Response of a Simply Supported Beam Subjected to Static Triangular Load	<b>Mohamed JANATI</b> , Lmokhtar IKHARRAZNE and Mustapha LAMINE
<b>S6</b>	<b>Modeling and Analysis of Natural Phenomena</b>	<i>Organizers: Ahmed TAIK, Karam ALLALI and Noureddine MOUSSAID</i>
S6- 1	Hybrid Experimental and ANN Approach for Predicting Thermophysical Properties of Biofuel-Oxygenated Additive Blends	<b>Rachid AITBELALE</b> , Fahd KARAMI and Driss MESKINE
S6- 2	Computational modeling of cancer response to oncolytic virotherapy	<b>Hamid LEFRAICH</b>
S6- 3	New interpretation of bimodality of solid products distribution in a magmatic chamber	<b>Morad LAKHSSASSI</b> , Youssef JOUNDY and Ahmed TAIK
S6- 4	Influence of Welding Defects on the Integrity of Pressure Vessels According to ISO 5817	<b>Ikram ELKORAICHI</b> , M. ALHAJAJI , A. ZAMMA
S6- 5	A Two-Strain Epidemic model with a Mean-Field Vaccination Game	<b>Madiha CHAGDAL</b> and Karam ALLALI
S6- 6	Developments on spectral characterizations of graphs	<b>Abdelhakim CHIBOUB</b> , BOUSSAIRI Abderrahim and LAKHLIFI Soufiane
S6- 7	Mean-Field Reflected Generalized BSDEs with Jumps Under Stochastic Conditions	<b>Mohammed ELHACHEMY</b>
S6- 8	Graph p-Laplacian and Spectral Clustering	<b>Farah SNIBA</b> , Fahd KARAMI and Driss MESKINE
S6- 9	Predicting the Moroccan Stock Market A Systematic Review of Econometric and Machine Learning Approaches	<b>Mohamed EL BADAoui</b> , Brahim RAOUYANE, Samira EL MOUMEN, and Mostafa BELLAFKIH
S6- 10	Existence and uniqueness of integral solutions to a parabolic equation governed by the fractional p-Laplacian operator	<b>Mohamed EL HATHOUT</b> , ALAA Nour Eddine and FAHIM Houda