



-JIAMA'23 Program -

*1^{re} Journée sur
l'Intelligence Artificielle & Mathématiques Appliquées*

04 Mai 2023, ENSA Al-Hoceima

Organisée par
l'École Nationale des Sciences Appliquées d'Al Hoceima
en collaboration avec ses partenaires



JIAMA'23 Program	
Sessions	Links Google Meet
Plenary conference 1	https://meet.google.com/tke-kodt-oqa
Plenary conference 2	https://meet.google.com/tke-kodt-oqa
Plenary conference 3	https://meet.google.com/ubj-tcgr-ibw
Plenary conference 4	https://meet.google.com/ubj-tcgr-ibw

Topic 1 : Applied Mathematics	
15h – 17h30	
Face to Face 1	https://meet.google.com/opj-riqh-pqb
Face to Face 2	https://meet.google.com/tjo-qgmq-uci
Online 1	https://meet.google.com/xzh-dbaa-fwc
Online 2	https://meet.google.com/nhp-madd-ahr
Online 3	https://meet.google.com/mjb-qutg-gqz
Online 4	https://meet.google.com/nwc-dsvu-eej

Topic 2: Artificial Intelligence	
15h – 17h30	
Face to Face	http://meet.google.com/xiy-vejy-wyb
Online 1	https://meet.google.com/iqx-bfme-rqp
Online 2	https://meet.google.com/iws-ahrh-iqx
Online 3	https://meet.google.com/zvv-nogc-ngv

Jeudi 04 mai 2023	
8h00 - 9h00	Registration
9h00 - 09h30	Welcome and opening Ceremony (Amphi B)
09h35 - 10h20	<p>Plenary conference 1: Chairman: A. BOUJRAF</p> <p><i>Overview of classification models in the case of supervised learning Modelling and Limits.</i></p> <p>Pr. Abdellatif EL AFIA <i>ENSIAS, Mohammed V University</i> https://meet.google.com/tke-kodt-oqa</p>
10h20 - 10h45	Welcome Coffee
10h45 - 11h35	<p>Plenary conference 2: Chairman: A. MOUSSAID</p> <p><i>Antitumorale : de la Bifurcation de Hopf à la Bifurcation de Turing</i></p> <p>Pr. Radouane YAFIA <i>Faculty of Sciences of Kenitra, Ibn Tofail University</i> https://meet.google.com/tke-kodt-oqa</p>
11h35 - 12h25	<p>Plenary conference 3: Chairman: M. ADDAM / Y. ABOUELHANOUNE</p> <p><i>Radial Basis Functions and Their Application to solve Partial Differential Equations</i></p> <p>Pr. Ahmed NAJI <i>FST Tangier, Abdelmalek Essaadi University</i> https://meet.google.com/ubj-tcgr-ibw</p>
12h25 - 13h20	<p>Plenary conference 4: Chairman: I. BADI</p> <p><i>Simulation–Artificial Intelligence in Computational Fluid Dynamics</i></p> <p>Prof. Rachid BANNARI <i>ENSA of Kenitra, Ibn Tofail University</i> https://meet.google.com/ubj-tcgr-ibw</p>
13h20-15h	Lunch Break

Session Orale n° 1**Amphi B
Face to Face****15h à 17h30****Google Meet link: <https://meet.google.com/opj-riqh-pqb>**

Topic 1: Applied Mathematics		Chairman: A. TOUKMATI / N. MORADI
15h		ID: 6015 On a class of Steklov problems involving $(p(x),q(x))$ Laplacian Abdessamad LAKHDI
15h15		ID: 3957 NEW INEQUALITIES FOR (p,h)-CONVEX FUNCTIONS FOR τ-MEASURABLE OPERATORS Mohammed BOUCHANGOUR
15h30		ID: 7101 Superconvergent Nystrom and Degenerate Kernel Methods for Integro-Differential Equations Abdelmonaim SAOU
15h45		ID: 7112 Domain decomposition preconditioner for a higher order compact difference discretization of a plate vibrations problem Yassin KHALI
16h		ID: 6489 Tripled system of nonlinear fractional Langevin equations with nonseparated integral boundary conditions Lahcen IBNELAZY
Chairman: Y. ABOU EL HANOUNE / M. ADDAM		
16h15		ID: 7125 Vibration and stability analysis of composite conical nano-shells based on nonlocal elasticity theory and Haar wavelet method Abdelhadi AZRAR
16h30		ID: 7116 A novel quantum information based computational approximate solution of the Schrodinger partial differential equation Imane EL HADOUTI
17h		ID: 7127 Optimisation du problème de tournées de véhicules pour la valorisation des déchets solides au Maroc HANANE AIT ELASRI
17h15		ID: 7169 Fractional Kirchhoff-type equations driven by an anisotropic operator Abdelilah AZGHAY
17h30-18h	Coffee Break and Poster Session	

Session Orale n° 2

**Salle 4
Face to Face**

15h à 17h30

Google Meet link: <https://meet.google.com/tjo-qgmq-uci>

Topic1: Applied Mathematics		Chairman: M. KACHAD & S. KHALLOUQ
<i>15h</i>		ID: 7120 Finite Volume Method for The Linearized Navier-Stokes Equation Youssef AMIROUNE
<i>15h15</i>		ID: 7107 Etude d'une nouvelle propriété de type Drazin-Ruston dans la théorie de Fredholm relativement à un homomorphisme entre deux algèbres de Banach Noureddine EL AMRI
<i>15h30</i>		ID: 9592 Finite element modeling of FRP-confined concrete under cyclic loading Soufiane EL YASSARI
<i>15h45</i>		ID: 0490 Conformal Perfectly Matched Layers for Bernstein–Bezier FE Modelling of Berkhoff Equation Saloua EL MARRI
<i>16h</i>		ID: 7122 Méthode des Volumes Finies et Éléments Finis pour la Résolution d'Équation de Stokes Mehdi OUAKIF
Chairman: Y. ZAHOUAN & A. BAKKALI		
<i>16h15</i>		ID: 7100 Investigation of Transient Nonlinear Heat Transfer Using Mohamed TAIBI
<i>16h30</i>		ID: 7103 Quantum Fisher information matrix and quantum Cramer-Raobound Souhaila BUKBECH
<i>17h</i>		ID: 7124 Smoothing splines Galerkin approximation for solving Black-Scholes PDE Salima BELKOUZ
<i>17h15</i>		ID: 6600 Transferts couplée d'humidité, de chaleur et de soluté dans la pierre calcarénite Mohammed HRAITA

<i>17h30-18h</i>	Coffee Break and Poster Session
------------------	--

Session Orale n° 1	ONLINE	15h à 17h30
<i>Google Meet link: https://meet.google.com/xzh-dbaa-fwc</i>		
Topic1: Applied Mathematics		<i>Chairman: A. Boujraf/M. TAHRICHI/ C. ALLOUCH</i>
<i>15h</i>	An continuous SIR mathematical model of the spread of infectious illnesses that takes human immunity into account Issam Khaloufi	ID: 3810
<i>15h20</i>	An entropy solutions for some nonlinear elliptic problem in Musielak-Orlicz spaces Ouidad Azraibi	ID: 9795
<i>15h40</i>	La consolidation unidimensionnelle des différents types des sols Hajar Azouagh	ID: 7104
<i>16h</i>	A novel approach based on genetic algorithms and parallel optimization for large industrial problems Saad Hassouna	ID: 369
<i>16h20</i>	Time-Schwarz DDM applied to a parabolic partial differential equation Abdelhalim Ben Bouzid	ID: 7857
<i>16h40</i>	Impact of support size in CSRBDF function interpolation for BEMD decomposition Mohammed ARRAZAKI	ID: 7108
<i>17h</i>	The thermistor problem : existence and numerical approximation Hajar Talbi	ID: 7111

Session Orale n° 2	ONLINE	15h à 17h30
<i>Google Meet link: https://meet.google.com/nhp-madd-ahr</i>		
Topic 1 Applied Mathematics		<i>Chairman: M. MASSAR / A. SALMANI/ M. ALLAOUI</i>
<i>15h</i>	Numerical simulation of pavement-tire interaction: investigating the effects of multiple parameters... Aziza El Ghoulbzouri	ID: 7105
<i>15h20</i>	Modeling and analysis of the effects of government programs on the prevention of unemployment Mohamed ELYAHYAOUI	ID: 7113
<i>15h40</i>	Existence and characterization of a bilinear spatial control of the wave equation Abderrahman AIT AADI	ID: 7114
<i>16h</i>	Meshless method for the numerical solution of fractional stochastic integro-differential equations based on the moving least squares technique ZAHRA EL MAJOUTI	ID: 7115
<i>16h20</i>	A numerical method for thin plate deformation problem using γ -Tensorial Spline Galerkin Approximation Ahmed BEN ABDELLAH	ID: 7117
<i>16h40</i>	Discrete Legendre modified projection-type methods for Hammerstein integral equations Hamza BOUDA	ID: 7119

Session Orale n° 3		ONLINE	15h à 17h30
Topic 1: Applied Mathematics		Chairman : A. MOUSSAID / F. MORADI	
15h	Dynamic response of High-speed railway bridges: A study on effects Stiffness of coupling connection and elastic bearing Abderrachid AFRAS	ID: 7106	
15h20	Analyse de réduction dimensionnelle d'une plaque mince élastique tridimensionnelle renforcée de rubans fractals Jamal El Amrani	ID: 9921	
15h40	Fast Convergence rates of Smooth Convex Functions using Inertial Dynamics with Tikhonov Regularization, Time Scaling, and Hessian-Driven Damping Akram CHAHID BAGY	ID: 7121	
16h	Integration of Lean Six Sigma and industry 4.0 to improve production performance Aziz EL MAMOUNI	ID: 9120	
16h20	Spectral Methods for nonlinear integral equation with superconvergent degenerate kernel Mohamed Mohamed ARRAI	ID: 7128	
16h40	A meshfree approach based on TSDT theory for the analysis of carbon nanotube reinforced ceramic Youssef BOUCHAOUATA	ID: 2592	
17h	Etude multi-échelle de l'érosion de contact solide/fluide au sein des ouvrages hydrauliques Assia HAIMOUD	ID: 7132	

Session Orale n° 4		ONLINE	15h à 17h30
Topic 1 : Applied Mathematics		Chairman: A. AMMAR / A. RIKOUANE	
15h	Quasi Efficient Solutions in a Nonsmooth Multiobjective Bilevel Programming Problem Mohsine Jennane	ID: 7963	
15h20	Numerical modeling of thermodynamic properties of some complex fluids using artificiel neural networks Rachid Aitbelale	ID: 3125	
15h40	Numerical Solution of Transverse Electromagnetic Wave Problems using Tensorial Spline FEM Imad El BARKANI	ID: 7118	
16h	Homotopy Sumudu transform method for solving fractional-order epidemic model Aadil LAHROUZ	ID: 9922	
16h20	Implementation and Convergence Analysis of Homotopy Perturbation Coupled with Sumudu Transform to Construct Solutions of Fractional PDEs Kamal AIT TOUCHENT	ID: 9923	
16h40	A hybrid Finite Element-Meshfree method for numerical simulation of FGM structures Redouane Elkadmir	ID: 9924	

Session Orale n° 1**Amphi A
Face to Face****15h à 17h30***Google Meet link: <http://meet.google.com/xiy-vejy-wyb>*

Topic 2 : Artificial Intelligence		Chairman: I. BADI /A. L. EL IDRISI / A. ZANNOU
<i>15h</i>		ID: 2025 <i>Blockchain pour l'éducation</i> <i>Adil Marouan</i>
<i>15h20</i>		ID: 3224 <i>Une étude comparative des algorithmes de classification pour guider les élèves marocains du collège,</i> <i>Morad Badrani</i>
<i>15h40</i>		ID: 4353 <i>Machine learning-based Ransomware detection: Review and challenges</i> <i>Omar CHAIEB</i>
<i>16h</i>		ID: 7109 <i>Smart Farming in Morocco: Advantages and Challenges</i> <i>ABDELALI EL IDRISI</i>
<i>16h20</i>		ID: 1287 <i>Multi-domaines Dataset pour l'analyse des sentiments Marocains dans les réseaux sociaux</i> <i>Sara El Ouahabi</i>
<i>16h40</i>		ID: 7123 <i>Quantum Codes from Cyclic Codes over Non Local Rings</i> <i>Noureddine Essaidi</i>
<i>17h</i>		ID: 7130 <i>Étude bibliographique comparative des approches classiques et de l'apprentissage profond en reconnaissance vocale</i> <i>Mohamed DAOUAD</i>
<i>17h30-18h</i>	Coffee Break and Poster Session	

Session Orale n° 1		ONLINE	15h à 17h30
<i>Google Meet link:</i>		https://meet.google.com/iqx-bfme-rqp	
Topic 2: Deep and Machine Learning		Chairman: A. BAHRI / Y. EL BORJI/ M. FAHIM	
15h		ID: 2594 <i>Survey on Breast Cancer Tumor Segmentation Using Deep Learning Schemes</i> <i>Zakaria ELGHAMCH</i>	
15h20		ID: 1209 <i>Analyzing accidents using a hybrid approach between metaheuristics and Deep learning: An overview</i> <i>Imane BRIKI</i>	
15h40		ID: 7110 <i>An optimization methodology using TSDT theory and artificial neural networks for the analysis of FGM plates</i> <i>Mohamed JANANAE ALLAH</i>	
16h		ID: 5217 <i>Catalogue de données : l'impact du machine Learning</i> <i>Asmae BOUFASSIL</i>	
16h20		ID: 7129 <i>Impact of Machine Learning on Diabetes Management</i> <i>SAHAR ECHAJEI</i>	
16h40		ID: 9005 <i>Textured Images Segmentation Using Bi-dimensional Pairwise Markov Chain</i> <i>Abdelali JOUMAD</i>	
17h		ID: 9925 <i>Analyse par DRX des échantillons</i> <i>Fahd Elkhalloufi</i>	
17h15		ID: 9807 <i>Applications de L'IA pour la prédition des nouvelles molécules en chimieorganique</i> <i>Aziz Zaroual</i>	

Session Orale n° 2		ONLINE	15h à 17h30
<i>Google Meet link:</i>		https://meet.google.com/iws-ahrh-iqx	
Topic 2 : Optimisation & Smart Cities		Chairman: E. DADI / N. KANNOUF / F. ZAKANI	
15h		ID: 9690 <i>L'intelligence artificielle pour booster le tourisme dans la région de Beni Mellal</i> <i>Salah Eddine El Jarroudi</i>	
15h20		ID: 7131 <i>Improving transportation for a smart and ecofriendly environement in smart cities</i> <i>ALOUANE HOUDA</i>	
15h40		ID: 1633 <i>Cement Dispatch Efficiency through License Plate Recognition for trucks identification & assignments</i> <i>Mohammed Toum Benchekroun</i>	
16h		ID: 2241 <i>A Survey of Blockchain Security: Challenges And Solution</i> <i>Marouan Zouin</i>	
16h20		ID: 2171 <i>Bioinspired Intelligent Optimization Algorithms and Its Applications for Mobile Robot</i> <i>Fadlo Said</i>	

16h40	ID: 2296 New approach to solve the Job Shop Scheduling Problem Ismail Ezzerrifi Amrani
17h	ID: 7102 Construction du diagramme de Voronoï 2D à l'aide de cercles croissants Abderazzak Taime

Session Orale n° 3		ONLINE	15h à 17h30
Topic 3: Big data & Education		Chairman: <i>A. KHAMJANE/ A. RAGRAGUI/ T. BOUDAA</i>	
15h		ID: 1520 <i>Data Lakehouse: a new data management approach</i> Hassan Badi	
15h20		ID: 3488 <i>ARTIFICIAL INTELLIGENCE IN STOCK MARKETS</i> Mohammed Bouasabah	
15h40		ID: 3631 <i>Artificial Intelligence for education Sustainability in higher education</i> Chemlal Yman	
16h		ID: 8153 <i>Serious games are an innovative method for teaching mathematics`</i> Mounia El Rhayami	
16h20		ID: 9807 <i>Spatio-Temporal statistical Analysis of Droughts in Al Hoceima Region by Using Meteorological Drought Indices</i> Ahmed Zian	
16h40		ID: 8615 <i>Survey of dynamic analysis of Multi Degree of Freedom systems</i> Yousra Elhankouri	
17h30-18h	Coffee Break and Poster Session		