International Workshop on Applied Mathematics and Engineering
IWAME 2022
In conjunction with ISIVC 2022
Université Chouaib Doukkali
May 18-19, 2022 - El Jadida (Morocco)
ENSA

IWAME'22 Program

Wednesday, May 18, 2022

08:30 – 09:00	**Registration**
09:00 – 09:30	**Opening/welcome IWAME/ISIVC**
09:30 – 10:30	**Keynote speaker ISIVC : Thomas Hain, Sheffield University, UK** **A review of the state of the art in speech processing technologies** **Chair : Atika Rivenq** *Grand Amphi*

10:30 – 11:00	**Coffee break**	
11:00 –12:00	**Keynote speaker : H. Safouhi, University of Alberta** **Generalized techniques in numerical integration** **Chair: Prof. A. H. Bentbib** *Amphi 2*	
12:00 – 14:00	**Lunch**	
14:00 – 15:00	**Keynote Speaker : M. Laabissi, *Chouaib Doukkali University*** **Control Systems with state, input and output constraints** **Chair: Prof. M. Erraoui** *Mini-Amphi 2*	
15:00 – 16:00	Session 1: Optimization, control and dynamic system (*Mini-Amphi 2*) Chair: Prof. M. Laabissi 15 :00-15:15, Berdouzi Driss, Adaptive output feedback stabilization for a class of Markov jump systems. 15:15-15:30, Salhi Jawad, Boundary controllability for a degenerate and singular Schrodinger equation. 15:30-15:45, Boulouz Abed, On exponential stability of boundary control systems with dynamic boundary conditions. 15:45-16:00, Ennouari Toufik, Stability and stabilizability of infinite-dimensional conformable semilinear systems.	Session 2: Partial Differential equations and applications (Salle) Chair: Prof. M. El Azzouzi 15 :00-15:15, Keraoui Houda, Existence of Solutions to Pessimistic Bilevel Optimization Problems via Regularization and Variational Convergence. 15:15-15:30, Bouhlal Aziz, Existence and uniqueness of solutions to some unbounded ellipticequations. 15:30-15:45, Saissi Fatima Ezzahra, Optimality Conditions for Strong Semivectorial Bilevel Problems. 15:45-16:00, TalhaAbdeslam, Renormalized solution for a nonlinear parabolic problems with noncoercivity in divergence form in Musielakâ€"Orlicz spaces.

16:00 – 16:30	Coffee break
16:30-18:30	Session 3: Numerical analysis and modeling (*Mini-Amphi 2*) Chair: Prof. H. Amrani 16 :30-16:45, Tahiri Ridwane, HOSVD-MPE: A generalized extrapolation method for tensors. 16:45-17:00, Wafa Benaatou, Deep Learning Model for Intelligent Handover Decision-Making in Wireless Networks using Tensor Flow and Keras. 17:00-17:15, Boubekraoui Maryam, Vector Aitken-extrapolation method for multilinear PageRank computations. 17:15-17:30, Laaouacha Doha, A two-dimensional analytical solution for air pollutant dispersion in a finite layer. 17 :30-17:45, El Hachimi Anas, General $\mathcal{L}$-product for hight order tensors with applications. 17:45-18:00, Youness El Yazidi, Reconstruction methods for inverse shape design problems. 18:00-18:15, Moujid Salma, A Numerical investigation of a diffusion problem. 18:15-18:30, El Halouy Smahane, Edge and node importance in hypergraphs.	Special session iwame/isivc (Salle) Chair: Prof. A. Alaoui Belghiti 16:30-16:50, Chakar Khadija, Cooling system using several nanfluids. 16:50-17:10, Penpen Komgue Lucrece Barbara, Mathematical model for the determinantion of the Young's modulus of polyurethane (PU) and polyvinyl Chloride (PVC) hearing protectors. 17:10-17:30, Youssef El Hmamsy, Mathematical model of Mono-DSSH network topology of energy harvesting optimization. 17:30-17:50, Hafsa Kandry, Theoretical modeling of a photovoltaic panel cooling system based on the thermoelectric effect. 17:50-18:10, Amine Erradi, Modeling of the effect of surfactant addition on electrolyte degradation in supercapacitors.

09:00 − 09:30	**Welcome**
09:30 − 10:30	**Keynote Speaker : H.A. Bentbib, Cadi Ayyad University** *Numerical linear and multilinear reduction and projection methods* **Chair: Prof. H. Safouhi** *Amphi 2*
10:30 − 11:00	**Coffee break**
11:00-12:00	Session 4: Scientific computing (*Mini-Amphi 2*) Chair, Prof A. H. Bentbib 11 :00-11:15El Ghomari Mohamed, The extended symmetric block Lanczos method for matrix-valued Gauss-type quadrature rules 11:15-11:30 Sadek El Mostafa, A numerical method for solving large-scale symmetric diff erentialSylvester equations 11:30-11:45 Kreit Karim, Global LSQR and conditional gradient total variation method forsolving inverse problem 11:45-12:00 Ai ADDI Ferdaous, Compressed sensing for multidimensional signals 12:00-12:15 Andahmou Aoulaila High-order stochastic principal component analysis algorithm.	Special session iwame/isivc (Salle) Chair: Prof.M. Erraoui 11 :00-11:20 Hamza El-Houari, A class of elliptic inclusion in Fractional Orlicz-Sobolev Spaces. 11:20-11:40 Hanan Najib, Partial finite-time stability for a mono-dimensional transport bilinear system. 11:40-12:00 Soufiane Yahyaoui, Bilinear optimal stabilization of a non-homogeneous Fokker-Planck equation. 12:00-12:20 Ismail Labaali, Randomized Tensor Singular Value Decomposition for Multidimensional Data Compression.

12:00 – 14:00	**Lunch**
14:00 – 15:00	**Keynote Speaker : M. Erraoui, *ChouaibDoukkali University*** ***On a Lévy process pinned at random time*** **Chair: Prof. M. Laabissi** *Mini Amphi*

	Session 5 / Session 6	
15:00 – 16:00	Session 5:Statistics and stochastic processes (*Mini-Amphi 2*) Chair: Prof. M. Zahid 15 :00-15:15 Mohamed El Hachemy, Viscosity Solutions of a obstacle problem of PDIE with nonlinear Neumann Boundary Conditions : Approach via Reflected Generalized BSDE with jumps and two rcll completely separated barriers. 15:15-15:30 Mohamed Salah Eddine ARROUCH, On the detection of change points in autoregressive model of order 1 15:30-15:45 Hakiki Youssef, Fractional Brownian motion with deterministic drift: Hiting probabilities and some path properties. 15:45-16:00 Chaddad Mounir, SDE with positivity constraints driven by fractional Brownian motion and standard brownian motion.	Session 6: Numerical analysis and modeling (Salle) Chair: Prof. A. Kadar 15:00-15:15 Chahir Meryem, On the numerical approximation of Burgers' equation. 15:15-15:30 Abdellah Amzil, Resource Management for MEC Two-Timescale Computation Offloading. 15:30-15:45 Kadiry Abbes, An approach on mathematical modeling of PV model: a case study of El Jadida. 15:45-16:00 Azzeddine. Achak, Algorithm for signal recovery and uncertainty principles for the Quaternion linear canonical transform.
16:00 – 16:30	**Coffe break**	
16:30-18:30	Session 7: Optimization, control and dynamic system	Special session iwame/isivc

Chair: Prof. A. El Bouhtouri (*Mini-Amphi 2*)	Chair: Prof. M. Essaouini (Salle)
16:30-16:45, El Mansouri Abdelbar, A discrete time model for studying the dynamics of the obesity epidemic.	16:30-16:50: Houssam Boughabi, Stochastic Volatility, a closed formula for futures contracts.
16:45-17:00, Essounaini Abdelhak, A Discrete Time Mathematical Modeling of Covid-19 Variants Model: An Optimal Control approach.	16:50-17:10: Safae El Gharbi, Energy eigenvalues of the three-dimensional Schrödinger equation using double exponential Sinc collocation method.
17:00-17:15, Labzai Abderrahim, Stability Analysis of a Fractional Order of a New Corona Virus Disease (Covid-19) Model.	17:10-17:30: Abdellaziz Binid, Lyapunov Design Controllers for a Mass Structured Cell Population Balance Model With Input Constraints.
17:15-17:30, Meryem Elkaf, Dynamics of cancer cells with immunotherapy and virotherapy.	17:30-17:50 Mohamed El Aallaoui, An Image Fusion Method using Shift-invariant Adaptive Selectivity Representation and Parameter-Adaptive PCNN.
17:30-17:45, Khasal Soufiane, optimal Control of a Stochastic Process.	17:50-18:05, Cherrad Hanane, Adaptive Cascade Control for a Cell Population Blance Model.
17:45-18:00, Aarabate Oumaima, Optimal Control of a Stochastic Process.	
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