



PLANNING OF IDTS24: 2ND INTERNATIONAL DOCTORAL TRAINING SCHOOL

03-06 JUNE 2024

| Time | | Monday 03 June 2024 | |
|-------------------------------|---|--|--|
| 08 :30 – 09 :00 | | Inscription | |
| 09 :00 – 10 :00 | | Opening | |
| 10 :00- 11 :00 | Course : Pr. Tom Britton | Chair : Pr. J.Bennouna - Pr. M.EL Khalifi | |
| | Title : Introduction to stochastic epidemic models, their large population limits, and their statistical analysis | | |
| 11 :00-11 :30 | | Coffee break | |
| 11 :30 - 12 :45 | Course: Pr. Tom Britton | Chair : Pr. M.EL Khalifi | |
| | Title : Introduction to stochastic epidemic models, their large population limits, and their statistical analysis | | |
| 16 :00 – 17 :00 | Seminar : Pr. Tom Britton | Chair : Pr. M.EL Khalifi - Pr. O.El Barrimi | |
| | Title : Introduction to stochastic epidemic models, their large population limits, and their statistical analysis | | |
| Tuesday 04 June 2024 | | | |
| 09 :00 – 10 :00 | Course : Pr. Aziz Alaoui | Chair : Pr. E.Azroul | |
| | Title : Modélisation et Analyse des Systèmes Complexes (SC) | | |
| 10 :00 – 11 :00 | Course : Pr. Tom Britton | Chair : Pr. M.EL Khalifi - Pr. O.El Barrimi | |
| | Title : Introduction to stochastic epidemic models, their large population limits, and their statistical analysis | | |
| 11 :00 – 11 :30 | | Break | |
| 11 :30 – 12 :45 | Course : Pr. Tom Britton | Chair : Pr. M.EL Khalifi - Pr. O.El Barrimi | |
| | Title : Introduction to stochastic epidemic models, their large population limits, and their statistical analysis | | |
| 16 :00 – 18 :00 | TP-TD: Pr. Mohamed El khalifi | Chair : Pr. O.El Barrimi - Pr. M.El Massoudi - Pr. A.Azzouzi | |
| | Title : Simulation Numeriques : logiciel utilisée: R | | |
| Wednesday 05 June 2024 | | | |
| 09 :00 – 11 :00 | Course : Pr. Tom Britton | Chair : Pr. M.EL Khalifi | |
| | Title : Introduction to stochastic epidemic models, their large population limits, and their statistical analysis | | |
| Thursday 06 June 2024 | | | |
| 09 :00 – 09 :45 | Talk : Pr. Maria Alessandra Ragusa | Chair : Pr. E.Azroul - Pr. A.Aberqi | |

| | | |
|---|--|--|
| | Title : On regularity for general functionals having double phase | |
| 09 :45 – 10 :15 | Break | |
| 10 :15 – 12 :45 | Course: Pr. Mohamed Seaid | Chair : Pr. E.Azroul - Pr. A.Azzouzi - Pr. M.Mekhour |
| | Title : Calcul scientifique avancée | |
| Session 1 : Pr. O. El Barrimi - Pr. M. EL Khalifi – Pr. M. El Mounni | Stochastic PDEs (S-10) | |
| 16 :00 – 16 :15 | Basri Layla | Title : Vaccination effect on a stochastic epidemic model with healing relapse and jumps. |
| 16 :15 – 16 :30 | Benazzouz Meryem | Title : Discontinuous stochastic modelling and discrete numerical approximation for an epidemic model with relapse. |
| 16 :30 – 16 :45 | Abdeslami Mohamed Mouad | Title : The Extinction, Persistence and Stationary distribution of a stochastic SIRH epidemic model with relapse and healing |
| 16 :45 – 17 :00 | Oualaid bdelkarim | Title : A Mild Approach to Spatial Discretisation for Backward Stochastic Differential Equations in Infinite Dimensions |
| 17:00 – 17:15 | LACHHAB Nafea | Title : Stochastic PDEs for fishery resources in Moroccan coasts |
| 17 :15 – 17 :30 | EL HAMMOUMI Zineb | Title : Existence and uniqueness of solution for a stochastic PDE |
| Session 2 : Pr. A. Azouzi- Pr. M. El Massoudi- Pr. M. Baddi | Scientific Computing and Numerical analysis (S-11) | |
| 16 :00 – 16 :15 | Aourir Essaid | Title : On the numerical solution of a class of VIE of the third kind based on the mesh-free technique |
| 16 :15 – 16 :30 | AKHAJJAM Ahmed | Title : Analysis of Deflection and Vibration in Kirchhoff Plates Using B-Spline-Based Finite Element Method in the Frequency Domain |
| 16 :30 – 16 :45 | El Marri Saloua | Title : Cartesian PML with exterior bathymetry effects for modelling wave refraction-diffraction problems |
| 16 :45 – 17 :00 | Bassir Ibrahim | Title : A partition of unity FEM for time-dependent diffusion problems |
| 17 :15 – 17 :30 | Ben Amma Bouchra | Title : Analytical and Numerical Methods for Fuzzy Differential Equations |
| Session 3: Pr . M. Shimi- Pr. M. Sрати - Pr. A. Zafrar | Calculation of Variations-PDEs (S-12) | |
| 16 :00 – 16 :15 | Daife Abdelali | Title : Weak solutions for certain variational quasilinear elliptic systems with multiple perturbations. |

| | | |
|---|-------------------------------------|--|
| 16 :15 – 16 :30 | Moujane Nouredine | Title : On a Kirchhoff-Schrödinger problems involving double phase operator in Musielak-Orlicz-Sobolev spaces |
| 16 :30 – 16 :45 | Riahi Hamza | Title : The $p(u)$ -Laplacian Problem : Results and Structural Stability in Variable Exponent Elliptic and Coupled Problems |
| 16 :45 – 17 :00 | Raiss Inssaf | Title : Study of some noncoercive anisotropic elliptic problems in weighted Sobolev spaces |
| 17:00 – 17:15 | Idrissi Mustapha | Title : Global existence of solutions for a parabolic type Kirchhoff equation with singular potential and logarithmic nonlinearity |
| Session 4 : Pr. A. Khazari - Pr. A. Aberqi -Pr. M. Lekhlifi | Dynamical systems (S-15) | |
| 16 :00 – 16 :15 | Khaider Hassan | Title : On the 3D fractional magneto-hydrodynamic equations in the Besov-Morrey characterized by Semi-groupe |
| 16 :15 – 16 :30 | Aghdaoui Hassan | Title : Fractional Physics-Informed Neural Networks Method for a Mathematical Epidemic Model |
| 16 :30 – 16 :45 | Bertoune Ayoub | Title: A stochastic Hepatitis B model with infinite Lévy jumps. |
| 16 :45 – 17 :00 | Fikri Fatima Ezzahra | Title : Modelling the Therapy and the Adaptive Immune Response in an HBV Infection Model in Both Liver and the Extrahepatic Tissue |
| 17:00 – 17:15 | MOUTAHIR Fatima-Ezzahrae | Title : Modelling radiative heat transfer in non-grey media under phase change |
| Session 5 : Pr. M. Mekkour - Pr. Z. Mazgouri- Pr. C. Yazough | PDEs and applications (S-17) | |
| 16 :00 – 16 :15 | OUMADANE Ismail | Title : Dynamic Analysis of Non-Autonomous Systems on Time Scales : Periodicity in Special case $T = R$ |
| 16 :15 – 16 :30 | Ouboufettal Morad | Title : Solvability of nonlinear multivalued elliptic problems involving degenerate coercivity with variable exponents and L ₁ -data. |
| 16 :30 – 16 :45 | AHAKKOUY Yassine | Title : Weak periodic solutions of a parabolic-elliptic system with Joule-Thomson effect |
| 16 :45 – 17 :00 | Aslaoui Tarik | Title : Existence Results for A Class of Fuzzy Higher-Order Differential Equations |
| Session 6 : Pr. A. Boumazourh - Pr. M. Ait Hammou – Pr. H. Hjjaj | Fractional Calculus (S-18) | |
| 16 :00 – 16 :15 | Ghandor Wadii | Title : The controllability of fractional differential systems with state and control delays |
| 16 :15 – 16 :30 | Baraka Sidi Aissa | Title : Image denoising based on the heat equation |

| | | |
|------------------------------|--|---|
| 16 :30 – 16 :45 | Fatry Mohammed | Title : A nonlinear elliptic problems with strongly nonlinearities and gradient terms |
| 16 :45 – 17 :00 | Bassir Mohamed el hassan | Title : Anisotropic interpolation of functions in sobolev spaces |
| Friday 07 June 2024 | | |
| 09 :00 – 11 :00 | Course : Pr. Attila Dénes | Chair : Pr. M.Mekhour - Pr. Y.Akdim |
| | Title : A glimpse of mathematical epidemiology: from simple to seasonal models | |
| 11 :00 – 11 :30 | Break | |
| 11 :30 – 12 :45 | Course: Pr. Mohamed Seaid | Chair : Pr. A.Azzouzi - Pr. M.El Massoudi |
| | Title : calcul scientifique avancée | |
| Saturday 08 June 2024 | | |
| 09 :00 – 11 :00 | Course: Pr. Mohamed Seaid | Chair : Pr. A.Azzouzi - Pr. M.El Massoudi |
| | Title : calcul scientifique avancée | |
| 11 :00 – 11 :30 | Break | |
| 11 :30 – 13 :45 | Course : Pr. Attila Dénes | Chair : Pr. E.Azroul - S.Bouda |
| | Title : A glimpse of mathematical epidemiology: from simple to seasonal models | |
| 13 :45 – 14 :00 | Closing | |