



4th International Doctoral Training School (IDTS26)

Applied Mathematics and Artificial Intelligence

April 13-18, 2026

Faculty of Science Dhar El Mahraz

Program of sessions

Sessions	Order	Title	Author
Session 1	1	Mathematical Modeling of Lung Cancer Using Artificial Intelligence	Bouissoui Lhoussain
	2	Analysis of a Fractional-Order Model for Breast Cancer	Fatima zahra BENCHAKRYA
	3	Hopf Bifurcation in Fractional Neuronal Systems	Dounia Rachyq
	4	Arabic Word Sense Disambiguation with AraBERT	Bouchra DAOUDI
Session 2	1	Approximate solutions of Volterra-Fredholm integro-differential equations	Bamouh Youssef
	2	Fuzzy Fractional Modeling of Multi-Stage Epidemic Dynamics	Safae Ben Cheikh
	3	Existence of solutions to nonlocal weighted Kirchhoff-type problems	Mohammed Allou
	4	On some nonlocal fractional problems with Neumann and Robin conditions	Ismail Ouariagli Mouthabbate
	5	Fractional $P(x)$ -Laplacians on Compact Riemannian Manifolds	Said Lijane
	6	Blow-up to a p -Laplacian parabolic equation with a general nonlinear	Oulaid En-Feur

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Session 3	1	Existence Results for a $p(x)$ -Laplacian problem	Houria ELIYSAOUY
	2	Nonlocal problem with fractional $p(x, \cdot)$ -Laplacian	Ahmed BOUSMAHA
	3	Second-Order Discrete BVP involving p -Laplacian	Anouar El-Allaly
	4	Singular Elliptic Equations with Degenerate Coercivity	Hassan El Hamri
	5	On the fractional Schrodinger equations via Morse theory	Abdesselam Saaoud
	6	Reconstruction of Time-Dependent Boundary Data	Hicham Ouchicha
Session 4	1	Dynamical Mechanisms of Epileptic Seizure Transitions	Chaymae Sabane
	2	Heterogeneity and disease dynamics implication	Mohamed El Khalifi
	3	Numerical optimization and application	Abderrahim Zafrar
Session 5	1	Explainable ML for Education Policy Insight	Ibrahim ALLALI
	2	School Effects on Grade Repetition	Ibrahim ALLALI
	3	Optimal control of the PPIGCNE	Mohamed EL-HADAF
	4	Life Credit Insurance Claims Prediction	Hamza BOUFIKR
	5	PINN for Solving Fisher-KPP Equation:	Ahmed Miloudi
	6	Advanced Polynomial Interpolation Problems	Omar Rhouni