LYMC 2023

Program

Day 1 - April 14th, 2023

09:00-09:30	Registration
09:30-09:45	Opening session
	Session 1 - Chair: Carlota Gonçalves
09:45-10:15	**Invited Talk: Teresa Faria** **Persistence and permanence for nonautonomous delay differential systems**
10:15-10:30	Pedro Campos et al., CMAFcIO-FCUL Unilateral Problems for Quasilinear Operators with Fractional Riesz Gradients
10:30-10:45	Francisco Agostinho et al., CAMGSD-IST NLS Bound States on T graphs
10:45-11:00	Priscila Costa Diniz, UAb Chiral symmetry-breaking in chemical systems: ODE model and bifurcation analysis
11:00-11:30	Coffee-break
	Session 2 - Chair: Carlota Gonçalves
11:30-11:45	Javier Orts et al., IST Characterisation of GM-varieties via equivariant cohomology
11:45-12:00	Delia Schiera et al., IST Critical Lane-Emden systems with Neumann boundary conditions: existence, regularity, and symmetries
12:00-12:15	João Paixão et al., UAb, CEMAT A Hybrid method for the numerical solution of the Inverse Acoustic Transmission Problem
12:15-12:30	Pedro Nogueira et al., CEMAT-IST On the Navier-Stokes equations with regularized directional do-nothing open boundary conditions
12:30-14:00	Lunch
	Session 3 - Chair: Fernanda Cipriano
14:00-14:30	**Invited Talk: Ana Bela Cruzeiro** **Brownian motion and some of its applications to Fluid Dynamics**
14:30-14:45	Neeraj Bhauryal et al., GFM - UL On a partial differential equation driven by white and fractional noises
14:45-15:00	Faustino Maciala et al., UMinho Matérn Correlation and Stochastic Partial Differential Equation
15:00-15:15	João Funenga et al., FCT NOVA Finding Real-World Orbital Motion Laws from Data
15:15-15:30	André Folgado et al., FCT NOVA Hedging in the Electricity Markets: Adapting to the Growing Role of Renewable Energy
15:30-15:45	Bruno Pires, CEMAT-IST Natural Gas Storage Valuation and Optimisation under Lévy Processes
15:45-16:00	Márcio Valente, FCT NOVA Inclusion of the ideal of compact operators into the algebra of Wiener-Hopf operators on variable Lebesgue spaces
16:00-16:30	Coffee-break
	Session 4 - Chair: M. Rosário Grossinho
16:30-16:45	Vasco Tavares et al., ISEG Pricing Renewable Energy Certificates
16:45-17:00	Beatriz Coimbra et al., CEAUL, ISEL-IPL Dynamics in Random Contact Networks: epidemic propagation in SIS and SIR models
17:00-17:15	Filipa Valdeira et al., FCT NOVA Gaussian Processes for Shape Modelling: a Probabilistic Registration Approach
17:15-17:30	Stevo Rackovic et al., IST High-fidelity Interpretable Inverse Rig: An Accurate and Sparse Solution Optimizing the Quartic Blendshape Model
17:30-17:45	Alina Shalukhina, FCT NOVA On the Extension of the Reverse Hölder Inequality for Power Functions on the Real Axis
17:45-18:00	Neto Pascoal et al., CEAUL-FCUL Child Growth Curve in Sofala - Mozambique and its comparison with other contexts
18:00-18:15	Makson Santos et al., IST Variational methods for an optimal partition problem with volume constraint
18:15-18:30	Pêdra Andrade et al., IST A glimpse into the fully nonlinear mean-field games systems

Day 2 - April 15th, 2023

	Session 5 - Chair: M. Rosário Oliveira
09:00-09:30	**Invited Talk: Miguel de Carvalho** **On a mathematical curve that shapes the world: From WW2 to generative AI**
09:30-09:45	Mafalda Sá Ferreira et al., FCT NOVA On the use of graph theory and machine learning algorithms in anti-money laundering systems
09:45-10:00	Gonçalo Mateus et al., FCT NOVA, NovoBanco An interpretable machine learning approach for predicting data centers usage
10:00-10:15	Diogo Lavado et al., FCT NOVA Leveraging Group Equivariance for Trustworthy Machine Learning Models
10:15-10:30	André Brito et al., FCT NOVA Temperature-Mortality Association: Portuguese Extreme Weather Event Early Warning System
10:30-10:45	Iúri Correia et al., CEAUL-FCUL Combining repulsion and attraction at different scales in spatial point processes
10:45-11:00	Patrícia Antunes et al., UBI Improving the accuracy and interpretability of linear models using cumulants
11:00-11:30	Coffee-break
	Session 6 - Chair: M. Rosário Oliveira
11:30-11:45	Catarina Afonso et al., FCT NOVA Analysis of crew time series absenteeism in the railway sector
11:45-12:00	Diogo Pinheiro et al., IST Classification of Interval-Valued Data Using Multi-Class Fisher Discriminant Analysis
12:00-12:15	Catarina Loureiro et al., CEMAT-IST Air Quality Data Analysis with Symbolic Principal Components
12:15-12:30	Frederico Rodrigues, FCUL Assymptotic Approximations of European Options Prices under the α-Hypergeometric Model
12:30-14:00	Lunch
	Session 7 - Chair: Gilda Ferreira
14:00-14:30	**Invited Talk: João Araújo** **The Sleeping Beauty**
14:30-14:45	Ana Catarina Monteiro et al., FCUL Inverse Semigroups vs Orthodox Semigroups
14:45-15:00	Paulo Santos et al., UTübingen, FCT NOVA Provability Implies Provable Provability' in FLINSPACE
15:00-15:15	Inês Rodrigues, FCT NOVA A local characterization of quasi-crystal graphs
15:15-15:30	Duarte Ribeiro et al., FCT NOVA Tropical representations and identities of the stylic monoid
15:30-15:45	Tânia Silva et al., CELC-FCUL A Schur ring approach to supercharacters of groups associated with finite radical rings
15:45-16:00	Francisco Canas et al., FCUL Comparative Analysis of Formulations for the Hamiltonian p-Median Problem
16:00-16:30	Coffee-break
	Session 8 - Chair: M. Rosário Ramos
16:30-16:45	João Marques et al., ISEL-IPL Exploring Complex Interactions in Tree-Mycorrhizal Fungus Networks: Community Analysis and Centrality Measures
16:45-17:00	Sofia Henriques et al., DEIO-FCUL, CMAFcIO Heuristics for the Black and White Travelling Salesman Problem
17:00-17:15	Shobu Shiraki et al., IST Pointwise convergence properties of infinitely many fermions
17:15-17:30	Lia Malato, FCUL, LASIGE A functional interpretation over finite types with star types
17:30-17:45	Ricardo Ferreira et al., FCT NOVA Probability of Collision of satellites and space debris for short-term encounters: Rederivation and fast-to-compute upper and lower bounds
17:45-18:00	Carolina Marques et al., CEAUL-FCUL Using spectral gating noise reduction algorithm to denoise sound data and identify patterns: a narwhal example
18:00-18:15	Closing Session