PROGRAM

All lecture rooms on the 2nd floor, Building Quelhas 6.
Room 202 (same floor) is available for free discussions or group meetings.

Friday, April 11th

9:00	**Registration** – Auditorium CGD
9:30	**Opening Session** – Auditorium CGD
10:00	**Plenary Talk I** – Auditorium CGD (Chair: Carlota Rebelo) **James Kennedy:** *Drums that (sometimes) sound the same*
10:45	**Coffee break**

11:15	**Parallel Sessions I**	
	Session IA – Auditorium CGD (Chair: Pedro Serranho)	**Session IB** – Auditorium 2 (Chair: Manuel Guerra)
	João Afonso: *Analysis of Dirichlet boundary control of the Stokes equation with mixed boundary conditions*	**Carlos Carteiro:** *Maximal functions of Toeplitz kernels*
	Muhammad Adnan Anwar: *Time-dependent strategy for improving aortic blood flow simulations with boundary control and data assimilation*	**Alina Shalukhina:** *Maximal operator on variable Lebesgue spaces: Euclidean vs. spaces of homogeneous type*
	Simão Eusébio: *Specialized finite difference method for linear partial differential equations*	**Sandra Thampi:** *The Brown-Halmos theorem for discrete Wiener-Hopf operators*
	Razi Khan: *Numerical analysis of shear-dependent unsteady non-Newtonian fluid flow and heat transfer in open-ended cavities*	**Márcio Valente:** *Fredholm criteria for singular integral operators with continuous coefficients on variable Lebesgue spaces*
	Yashveer Kumar: *Numerical approximation scheme based on computational method to solve distributed order fractional financial mathematical model*	**Ghulam Abbas Khan:** *Spline collocation method for a class of singular fractional differential equations of an order $\beta \in (0,1)$*

12:30	**Lunch**
14:30	**Plenary Talk II** – Auditorium CGD (Chair: João Janela) **Paulo Mateus:** *Open problems in quantum computation and cryptography: A mathematical perspective*
15:15	**Coffee break**

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15:45	**Parallel Sessions II**

Session IIA – Auditorium CGD (Chair: Raquel Bernardino)	**Session IIB** – Auditorium 2 (Chair: João Araújo)
Francisco Canas: *Formulations and branch-and-cut algorithms for cycle covers with up to p cycles*	**Diogo Freire de Andrade:** *The bordism $(\infty, 1)$-category as a Morita category of stratified spaces*
Sofia Henriques: *Formulations and branch-and-cut algorithms for the period travelling salesman problem*	**Guilherme Azevedo:** *Partition regularity of Pythagorean triples*
Tomás Kapancioglu: *Integer linear programming models for the travelling thief problem*	**Maria Osório:** *Bilateral base-extension semantics*
Parisa Ahani: *Optimizing decision-making framework under uncertainty for transport operations*	**Tânia Paulista:** *Classes of semigroups and their commuting graphs*
Jacopo Strada: *Physico-chemical boundary conditions for multiphysics modeling of rechargeable Zn-Air flow batteries*	**Ana Catarina Monteiro:** *Product of formations and Fitting classes on groups and some generalisations*
Maria Grazia Quarta: *A deep learning approach to parameter estimation in battery modeling for charge-discharge processes*	**Faustino Maciala:** *On the Drazin inverse of double star digraph matrices: Index characterization and pseudo-inverses*

Saturday, April 12th

9:00	**Registration** – Auditorium CGD
9:15	**Plenary Talk III** – Auditorium CGD (Chair: Fernanda Cipriano) **Benedetta Ferrario:** *Stochastic fluid dynamics*
10:15	**Parallel Sessions III**

Session IIIA – Auditorium CGD (Chair: Maria do Rosário Oliveira)	**Session IIIB** – Auditorium 3 (Chair: Fernanda Cipriano)
Vítor Augusto: *PSInference: A package to draw inference for released Plug-in Sampling single synthetic dataset*	**Kush Kinra:** *Global-in-time optimal control of stochastic third-grade fluids*
Felipe Barletta: *Bayesian joint analysis to severity of illness and length of stay of patients using Portuguese hospital morbidity database*	**Raya Nouira:** *Continuous data assimilation for a class of third-grade fluids equations in 2d and 3d*
Vera Pinto: *Statistical considerations in variant calling: A performance-based comparative study*	**Anita Ribeiro:** *Shape optimization problems in PDE, an introduction*
João F. Carrilho: *Topic analysis on glioma transcriptomics for improved disease characterization and biomarker discovery*	**Diogo Franquinho:** *Neural network empowered liquidity pricing in a two-price economy under conic finance settings*
Luís Garcez: *tradeoffaucdim: An R package for accessing the trade-off between model performance and dimensionality*	**João Paixão:** *A hybrid method for the inverse transmission problem of scattering a time-harmonic acoustic wave by a penetrable object*
João Rodrigues: *Proximity measures and outlier detection for mixed-type data*	

11:45	**Coffee break**
12:15	**Plenary Talk IV** – Auditorium CGD (Chair: Manuel Guerra) **Hansjörg Albrecher:** *Mathematics for insurance, the modeling of NatCat risks and climate change*
13:00	**Closing Session** – Auditorium CGD